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PAGE
108



Digital Photography

Volume 45



SUPER PORTRAITS

Heroes + Villains

VISIONARY IMAGES OF 20TH CENTURY
ICONS IN 16TH CENTURY GARB p40

PHOTO SKILLS

- HOW TO SHOOT THE MOON
- PLAYING WITH EXTREME ISO
- ENVIRONMENTAL PORTRAITS

ULTIMATE GUIDE

Essential tips for conquering
landscape composition p46

WILD AT HEART

A very different approach to
African Safari Shooting p26



NIKON D7200!

ADVANCED
FEATURES IN A
TIDY PACKAGE p92



PLUS

Sister Act

CAPTURING SIBLING PORTRAITS
THE SIMPLE WAY p82

Self-Portraits

FEMININE PHOTO-ART FROM
RISING STAR KELLIE NORTH p18

45



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c i t r u s m e d i a



THIS COULD BE our strongest issue of *Digital Photography* yet. What a line-up – made all the more pleasing by the fact that two of our featured photographers are fans of the mag who came to us simply by way of the Reader Gallery.

The first is Kellie North, whose face you can't quite make out in the image above. You'll not be able to make it out in her article either – even though this Woman in the Woods (page 18) produces virtually nothing but self-portraits. She submitted a sample of her photo art to the mag only a few short months ago and I was intrigued enough to ask to see more. I'm very glad I did; it's been a dream of Kellie's to sell her work to an art buyer... a feat she accomplished literally as we went to press. (Remember, Kellie: we knew you before you got huge! Just.)

The second friend of the mag is Kym Illman, who has been submitting wildlife images to the Reader Gallery for close to two years now. It's been amazing to watch the style of those images gradually increase in audacity and unique cunning; he and his wife Tonya seemed able to capture animals up close and on the move in ways rarely seen. Now that we're running an extract from his debut book *Africa on Safari* (page 26), the curtain is drawn back and his secrets are revealed.

And those two only scratch the surface of an issue packed with surprises, including a 12-page guide to landscape composition (page 46), and the stunning *Super Flemish* exhibition (page 40) that is the subject of our remarkable cover image. Our photographic cup truly runneth over. Enjoy!

Greg Barton Editor

ON THIS ISSUE'S COVER...

The arresting image from this issue's cover was shot by Paris-based shooter Sacha Goldberger. His captivating exhibition of modern icons in archaic costumes is all the more impressive because of how little post-processing was done. For more on the project, turn to page 40.



SUBSCRIBE TODAY!

You can get your regular fix of *Digital Photography* inspiration and advice direct to your door or mobile device by subscribing to our print and/or digital editions. We always have competitions with opportunities to win great prizes too! For more details, see page 98.



Contents

ISSUE 45

3 EDITOR'S WELCOME

6 PORTFOLIO

Kicking things off with some breathtaking shots that are sure to spark your creativity.

18 THE WOMAN IN THE WOODS

Rising star Kellie North specialises in emotive self-portraits – and the fine art world is sitting up and taking notice.

26 AFRICA ON SAFARI

Long-time Perth reader Kym Illman has returned with incredible images that offer a unique perspective on Africa's wildlife.

40 SUPER FLEMISH

Paris-based photographer Sacha Goldberger puts 20th century heroes in 16th century garb – with amazing results.

46 ULTIMATE PHOTO GUIDE

Part One of your essential guide to Landscape Composition.

108 YOUR GALLERY

All the latest works of art from the *Digital Photography* community – with prizes to be won!



26

Photo technique & advice

34 SIMPLE + BEAUTIFUL

Canberra's Shanx Bose flexes his Photoshop fingers in this Intermediate-Advanced tutorial.

58-81 PHOTO SKILLS

Shooting rough coastal scenes; capturing an environmental portrait; shooting exposures for a striking panorama; playing with extreme ISO; photographing the moon; creating and editing a fun triptych; how to use clamshell lighting.

82 SISTER ACT

Looking for ideas and inspiration on how best to capture stunning images of your family? In this issue's Family Album, Brett Harkness reveals his secrets for working with siblings of similar ages.



CONTRIBUTING THIS ISSUE...



Kellie North PHOTO ART

Venturing into the woods near her home, the Gold Coast photo artist's series of self-portraits expressing femininity and emotion are beautiful and evocative.

kellienorthcreative.com.au



Kym + Tonya Illman WILDLIFE

The Perth duo's debut book *Africa on Safari* is a real achievement in wildlife photography.

kymillman.com



Shaxn Bose PHOTOSHOP

Canberra's Shaxn Bose (Max Photography) is one heck of a shooter... but that's nothing compared to his Photoshops-chops. facebook.com/maxphotography.au



Daniel Lezano

With more than 30 years of experience as an enthusiast photographer and almost 20 years on photo magazines, Daniel is as passionate as ever about photography, portraits in particular.



Helen Dixon LANDSCAPES

Helen is living the dream, having given up a full-time job to become a professional landscape photographer.

helendixonphotography.co.uk



Ross Hoddinott LANDSCAPES

He's not only an award-winning nature photographer, a leading expert in landscape and wildlife photography, he's a top tutor, too.

www.roshoddinott.co.uk



Brett Harkness PORTRAITS

You either want to be photographed by him or shoot like him. A master of portraits, fashion and weddings, Brett runs regular workshops.

brettharknessphotography.com



Jonathan Bielaski PORTRAITS

A professional photographer specialising in location and environmental portraits, Jonathan works across Canada and the US.

jonathanbielaski.com



Jordan Butters LANDSCAPES & REVIEWS

With a finger always on the pulse of photography, Jordan turns his hand to most things; he's a senior features writer and talented pro photographer.



92

Gear: Tested & rated

88 GEAR NEWS

The latest product and gear news, hot off the press.

90 NIKON D5500 + D7200

A double dose of Nikon quality.

94 FUJIFILM X100T

Does this third-gen compact live up to the hype?

96 SAMYANG 24MM F/1.4

Pin sharp, full-frame wide-angle lens.

97 WESTCOTT APOLLO ORB

Deep umbrella octabox that fits any light.

98 BIG SHOT TRIPODS

Two of the big guns square off in this head-to-head.

100 BUDGET FLASHGUNS

Ten of the best under under \$500.



82

Portfolio

Swan Lake

by Annie Mitova

www.anniemitova.com

"I've wanted to do a *Swan Lake*-inspired shoot for a long time. I was keen to explore the idea of the black swan character; the juxtaposition between the innocence of childhood and the darker side of the black swan appealed to me. This was lit using a beauty dish and the flash's modelling light only, allowing me to capture the movement of her dance."

Nikon D7100 with AF-S 85mm f/1.4G lens. Exposure: 1/80sec at f/1.4 (ISO 100).



Portfolio



Fire and Ice by Annie Mitova

www.anniemitova.com

(Above) "This is inspired by Hans Christian Andersen's *The Snow Queen*. I had intended to do the shoot outdoors, but for once I had nothing but sunny weather! We moved the shoot inside – my studio is small so I shot in portrait orientation and extended the image. Fake snow was used on set and extra was added during processing."

Nikon D7100 with AF-S 35mm f/1.4G lens. Exposure: 1/40sec at f/1.4 (ISO 100).

The Midnight Dance by Annie Mitova

(Far right) "This was inspired by the story of Cinderella. I imagined her as breaking free of a curse and transforming into a princess, without the ball and the prince! As with *Swan Lake*, I lit this with a beauty dish and modelling lamp to capture movement. A little composite work on the hair and dress post-capture added a painterly effect."

Nikon D7100 with AF-S 35mm f/1.4G lens. Exposure: 1/100sec at f/1.4 (ISO 100).



Black Swan by Annie Mitova

(Centre right) "This is a progression from the *Swan Lake* image on the previous page, with the girl transforming into the black swan. I composited the swan's head into her hair from an image I shot of a real swan while in Hawaii. Cracks were added to her skin and I changed her eye colour and added digital make-up too."

Nikon D7100 with AF-S 85mm f/1.4G lens. Exposure: 1/160sec at f/1.4 (ISO 100).

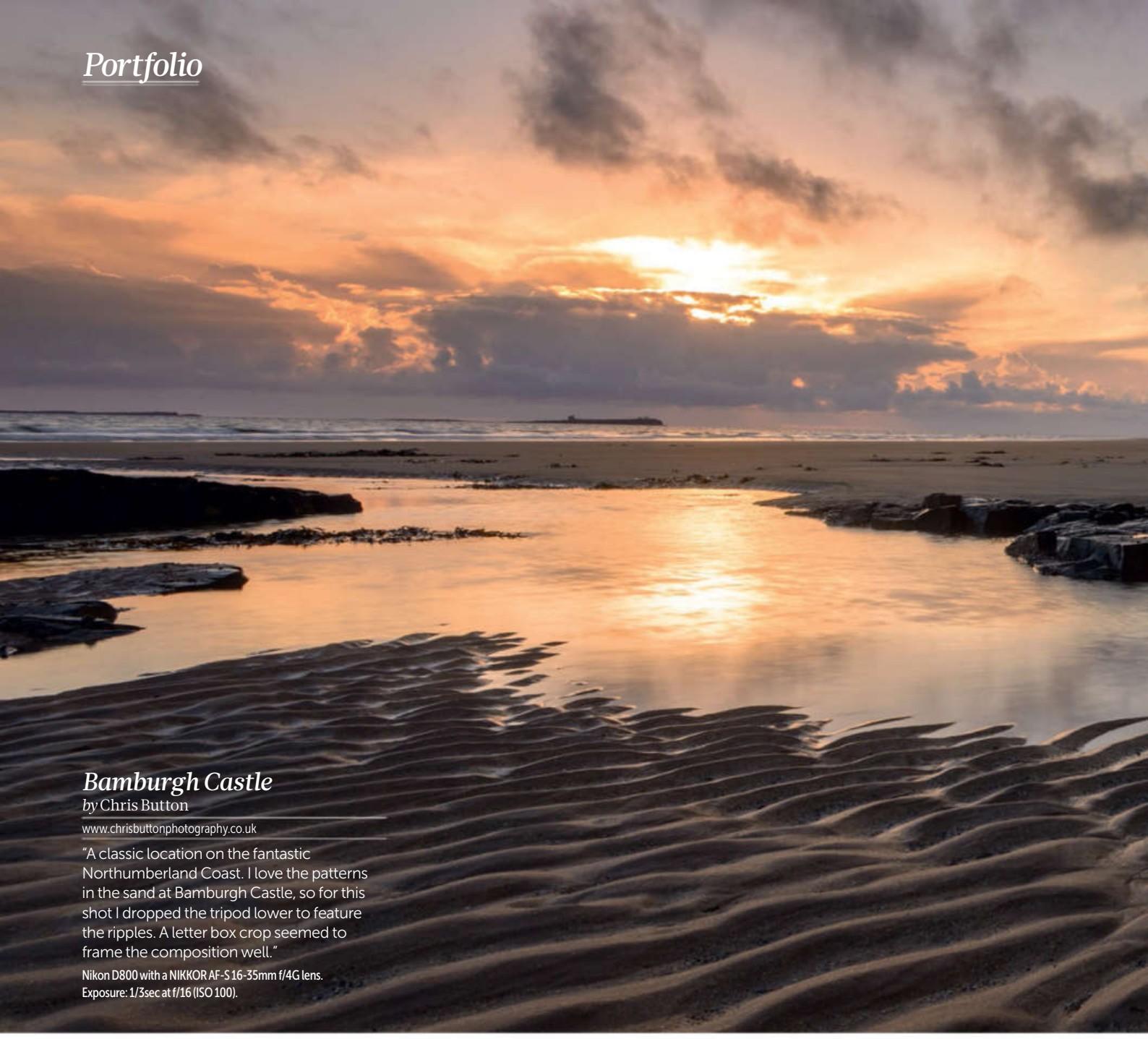


The Archduchess by Annie Mitova

(Bottom right) "This represents Marie Antoinette as the Archduchess of Austria during her childhood. I wanted to show her dreamy and innocent world before she is changed by politics. UK designer Richelle Rudeen made the costume. This was also lit using a beauty dish and modelling lamp only, for a warm, painterly effect."

Nikon D7100 with AF-S 35mm f/1.4G lens. Exposure: 1/60sec at f/1.4 (ISO 100).





Bamburgh Castle

by Chris Button

www.chrisbuttonphotography.co.uk

"A classic location on the fantastic Northumberland Coast. I love the patterns in the sand at Bamburgh Castle, so for this shot I dropped the tripod lower to feature the ripples. A letter box crop seemed to frame the composition well."

Nikon D800 with a NIKKOR AF-S 16-35mm f/4G lens.
Exposure: 1/3sec at f/16 (ISO 100).

Corfe Castle, Dorset

by Chris Button

(Right) "As I climbed up West Hill, overlooking Corfe Castle, and looked back, I realised I had been lucky with the conditions – the 4am alarm call had been well worth it. I quickly found a viewpoint looking south east towards where the blanket of fog had concentrated around the castle."

Nikon D700 with a NIKKORAF-S 24-70mmf/2.8GED lens.
Exposure: 1.3 seconds at f/13 (ISO 200).

Ibsley Common, New Forest

by Chris Button

(Far right) "This shot of a lone pine tree was taken on the heather-covered plains of the New Forest in Hampshire. I was looking in the direction of the rising sun as subtle peach tones developed, which complemented the heather. A few minutes later and the dynamic range was too difficult to manage."

Nikon D300 with a Tokina AF12-24mmf/4AT-X Pro DX lens.
Exposure: 1/8sec at f/11 (ISO 400).





Portfolio



Siq, Petra, Jordan by Peter Day

www.peterdayphotography.com

(Above) "The Siq is a long, narrow canyon that joins the town of Wadi Musa to the ancient ruins of Petra. A constant procession of horse-drawn carriages ferry people during the day. With my back pressed firmly against a wall, and after countless attempts, I captured this image by panning using a slow shutter speed."

Canon EOS 5D Mk II with Canon EF 24-105mm f/4 IS USM lens.
Exposure: 1/8sec at f/10 (ISO 400).

Oia, Santorini, Greece by Peter Day

(Far right) "An iconic feature of Santorini is the white walled churches with their characteristic blue domes. After searching the narrow streets of Oia for a vantage point, I came across this view with a stairway leading down. I had to lean my tripod over a gate, but was lucky enough to get a colourful, warm sunrise."

Canon EOS 5D Mk II with Canon EF17-40mm f/4L USM lens.
Exposure: 0.5seconds at f/13 (ISO 200).

Wadi Mujib, Jordan by Peter Day

(Right) "Wadi Mujib is a canyon that flows out of the mountains into the Dead Sea. The walls close in and the water gets deeper the further you go. I settled for this section, which was waist deep – I climbed onto a rock, set up my tripod, and used a long exposure to capture the movement of the flowing water."

Canon EOS 5D Mk II with Canon EF17-40mm f/4L USM lens.
Exposure: Four seconds at f/10 (ISO 400).





Portfolio





Three Sisters by Fiona Campbell

http://bit.do/DSLR_fiona_campbell

(Above) "Scotland has a rich landscape full of countless photo opportunities. On a beautiful evening I ventured up the hill opposite The Three Sisters of Glen Coe, composing the scene to frame the view down to the loch. I used both 0.6 and 0.9ND soft grad filters to hold back the glorious sky."

Canon EOS 5D Mk III with Canon EF 24-105mm f/4L IS USM lens. Exposure: Six seconds at f/18 (ISO 50).

Commando Memorial by Fiona Campbell

(Centre right) "I wanted to take an image of the Commando Memorial at Spean Bridge with the striking red poppy wreaths laid at the base. Just when it looked as if cloud cover was going to spoil my intentions, the sun burst through, bathing the scene in golden side lighting. I used a polarising filter alongside 0.6 and 0.9ND soft grads to balance the scene."

Canon EOS 5D Mk III with Canon EF 24-105mm f/4L IS USM lens. Exposure: 0.8 seconds at f/22 (ISO 50).



Eilean Donan by Fiona Campbell

(Right) "This was taken on the way back from an overnight trip to the Isle of Skye. It is such an iconic spot, we could not resist stopping off to shoot it. I used a ten-stop ND filter to achieve a long exposure; smoothening out the reflection of the castle, the movement of the clouds and recording the fantastic changing colours in the sky."

Canon EOS 5D Mk III with Canon EF 24-105mm f/4L IS USM lens. Exposure: 551 seconds at f/18 (ISO 50).

Lochan Milky Way by Fiona Campbell

(Left) "A still and cloudless evening were the perfect conditions at Glencoe Lochan for a shot of the night's sky. I composed the image so that the band of the Milky Way lined up with the gap in the trees. I shot a seven-frame vertical panorama to record as much of the Milky Way as possible. The images were stitched together in Photoshop CS6."

Canon EOS 5D Mk III with Canon EF 17-40mm f/4L USM lens. Exposure: 30 seconds at f/4 (ISO 6400).



Portfolio



Allure by Dmitry Trishin

www.500px.com/tdum

(Above) "The photo was taken in a bedroom using natural light. I shot using a wide aperture from the model's eye level to allow her body to fall gently out of focus – the perspective, angle, her gaze and the setting combined to create a sensual final image."

Canon EOS 5D Mk II with Sigma 50mm f/1.4 lens. Exposure: 1/200sec at f/1.4 (ISO 800).

Home comfort by Dmitry Trishin

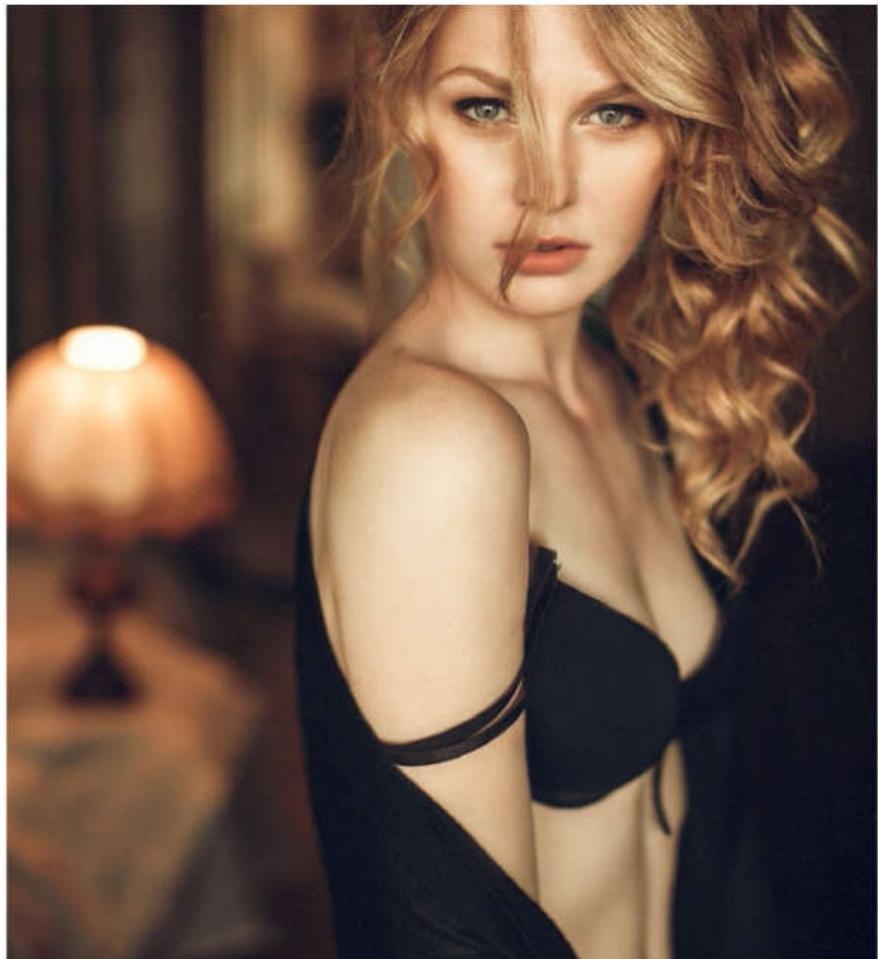
(Right) "This image was also shot using soft, indirect natural light, from a large window situated directly behind me. I switched on the lamp and light in the doorway behind the model to create a warm and homely atmosphere and to add depth."

Canon EOS 5D Mk II with Sigma 50mm f/1.4 lens. Exposure: 1/250sec at f/2 (ISO 640).

Golden by Dmitry Trishin

(Far right) "This was taken on a street during golden hour. The setting sun creates a soft flare and backlights the model's hair, looking somewhat like a halo. I chose to convert this image to black & white as I felt it fitted in with the mood and emotion."

Canon EOS 5D Mk II with Sigma 50mm f/1.4 lens. Exposure: 1/500sec at f/2 (ISO 200).





Kellie North



Desolation: Shot with a Canon 60D;
50mm lens; 1/800sec; f/6.3; ISO 2000

The woman in the woods

With her growing collection of highly emotive, limited edition self-portraits garnering the attention of local art buyers, Queensland's **Kellie North** is certainly a talent to watch. Here she discusses the inspiration for her evocative – and sublimely feminine – photo art.



Ascension: Canon 60D; 18-200mm lens; 1/125sec; f/4; ISO 2000

Kellie North



Emergence: Canon 60D; 18-200mm lens; 1/60sec; f/5.6; ISO 200

I'm 39 years of age and I originally hail from a small town in North Queensland. After my schooling I spent many years abroad studying, working, travelling, adventuring and taking photos. When it was time to return home I decided to lay my hat in a spectacular part of the southern Gold Coast, and this is where I still reside today.

Being so accessible to the beach, hinterland and the glorious area of Northern NSW and beyond, my family and I are very rarely home on a weekend. We love to head to a beach or national park camping, surfing or hiking and of course scouting for locations and shooting for my images.

Quite often my very patient husband and daughter will help me with my shoots, lingering around while I just get one more shot! My daughter has been heard saying, "Mamma, you are always taking photos!"

The beginnings

I picked up my first SLR camera in 2000 and from that moment on I knew I had found a passion. I was and am rarely found with a point and shoot camera in my hand as I love the feel and weight of my SLR and of course the quality of images it produces.

I have loved everything about shooting images, from waking up early and driving to a location to get that morning sunrise over the mountains to the excitement – back in the day! – of sending your film in to get processed and waiting to see the results.

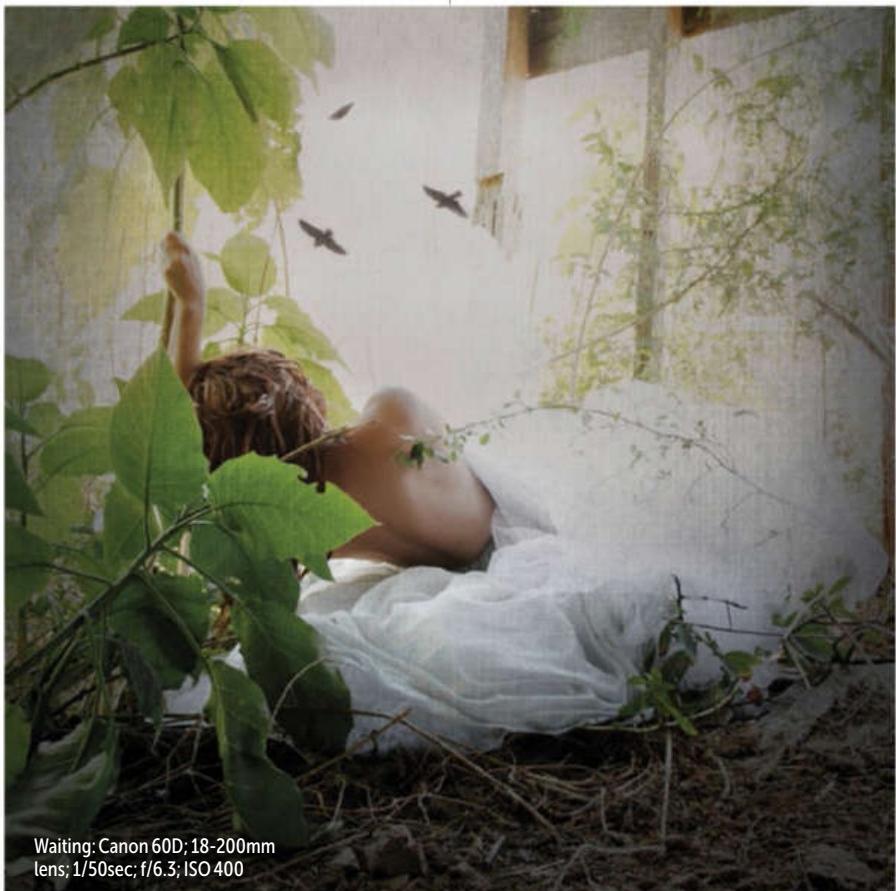
I fell in love with photography even more while travelling and was lucky enough to have worked on a contract for a travel book. That experience allowed me to gain an insight into the genre of travel photography and photojournalism, which I believe is really where I felt I would always have photography in my life.

I have always loved listening to people's stories but in turn have loved the reciprocity of telling a story myself, and photography has become a wonderful medium through which I can tell those stories.

To put my finger on the first image I took that I was happy with would be a very



Find Your Path: Canon 60D; 50mm lens; 1/6400sec; f/1.8; ISO 400



Waiting: Canon 60D; 18-200mm lens; 1/50sec; f/6.3; ISO 400



Let Go: Canon 60D; 18-200mm lens; 1/640sec; f/3.5; ISO 1000

"I chose not to show my face. It creates the opportunity for the viewer to see and feel themselves in the image"

difficult task. I think in the beginning, in the days of film when I was learning to use my SLR camera, any shot that I purposely set the functions for, got processed and came back in focus with the correct exposure and colour was a great shot for me. But to narrow it down, images that I'm most proud of in the beginning were ones that I took in South America of Torres Del Paine and Mt Fitzroy. The air was so clean, the days were clear and the colours were vibrant. That is where I believe I turned a corner in my learning. I loved everything about capturing

those images: the waking up early; the silence around me while I set up to take the shot; the stillness in myself while I waited for the light. I loved and still love capturing a moment in time that will never again be the same.

Kellie's kit

My very first SLR camera was a Canon EOS 300 35mm kit with a 28-80mm f3.5-5.6 lens and an 80-200mm f2.8 lens. I had that camera and those lenses for quite a few years before they got stolen. I then I

upgraded to a Canon EOS 300D, my first digital camera. A few years later I added to my collection a Canon EOS 60D, which is the camera I still use today. The lenses I use predominantly are a Canon 50mm f1.8 portrait prime lens and a Canon 18mm-200mm f3.5.

Life's lessons

For most of my life I would have to say I have been a self-taught photographer, doing my apprenticeship either on the job or out in the field and have always upgraded my skills with small courses online or in a college from time to time. That was up until 2014 when I decided to study a Diploma of Professional Photography with The Photography Institute and graduated with success.



Strength: Canon 60D; 18-200mm lens; 1/500sec; f/4; ISO 800



Loss: Canon 60D; 18-200mm lens; 1/250sec; f/4; ISO 400



"I see women as intricate and beautiful beings who become the women they are based on experiences they have in their lives"

During my studies I was exposed to other inspiring photographers and genres that opened my eyes to the artistic side of photography and how an image could become a piece of art and not just a captured moment. That's where I would say I started to develop my voice and style as a photo artist. I learned the techniques in professional workshops or online, and above all discovered that I needed – both within my shooting process and Photoshop – to keep my flow simple and effective.

Developing a style

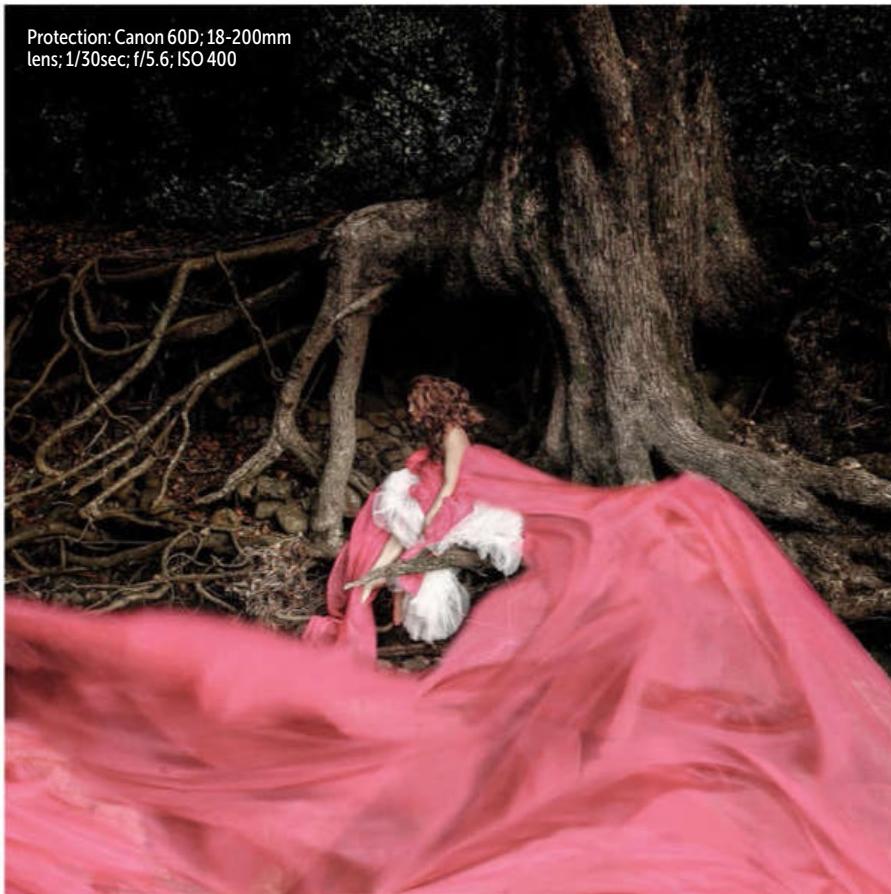
The style of photography that I'm most drawn to is definitely Fine Art/Digital Photo Art. Together with photography I have always loved graphic art and working on my computer, so when I discovered the world of Photoshop and how you could use it as a tool to create realistic images with compositing, textures, colour manipulation etc, my world simply fell into place.

I love the human form, dance and movement and creating characters with costumes and props to set a scene, hoping the viewer can immerse him or herself into the story, possibly taking on that character and relating to it in some way.

The images

My process when shooting an image always starts with an idea, then I usually transfer that idea into my notebook where I draw my image, or at least try to.

Protection: Canon 60D; 18-200mm lens; 1/30sec, f/5.6; ISO 400



Autumn Rises: Canon 60D; 18-200mm lens; 1/6400sec; f/4; ISO 100



Kellie's Top Five must dos

1. **LOOK AFTER YOUR CAMERA!** Clean and maintain it when and where necessary. Your camera is the tool of your trade and needs to be respected and looked after!
2. **TRY TO STAY TRUE TO YOURSELF.** Try not to look at what other photographers are doing on social media and stay true to yourself. Every artist has a story to tell and there is room enough for everyone.
3. **KEEP SHOOTING.** Never stop taking photos; the more you shoot, the more images you can create, always improving with every shot.
4. **REMAIN CURIOUS AND TRY IT!** Always ask questions: what if I shot at this time of day? What if I shot with this aperture? What if I shot underwater? GIVE IT A GO you might surprise yourself.
5. **BELIEVE IN YOURSELF.** If you don't, no-one else will.

I gather together and jot down thoughts, colours, costumes, theme and story or message I want to convey and go from there.

I usually have a location in mind from scouting I have done from time to time around my local area. Usually the locations I choose are natural and wild and not too far from my home, for instance in a national park, on the beach, rock pools etc.

The costumes I source are mostly from local charity shops or craft bins. I love pieces of fabric that can be fashioned into a dress with a hair tie etc. Simple is best in my opinion.

Next I gather everything I need for the shoot. Staple elements tend to be: camera and lenses; tripod; remote; costume; props and gumboots (just in case there is mud!). I like to shoot at a time before the sun has come up or just when the sun has set. It's a lovely, flat, magic light with no shadows and enough exposure so that I don't have to bump up my ISO too much. However, I don't mind a bit of grain or noise in my images as it adds to the grungy/textured effect sometimes.

Most of my images are self-portraits. I do this not because I like being in front of the camera but because of the ease of it. I only have to direct myself and it is easy on the budget! Then I pack up my car and set off to the location.

When there I set up my tripod, put on my costume, grab the remote in my hand and set about my pose, usually jumping into the air or twisting myself into some sort of distorted posture.

I try to take only the shots I think I need, checking the exposure, settings and focus points at times just to make sure I'm getting the best out of every shot.

Kellie North

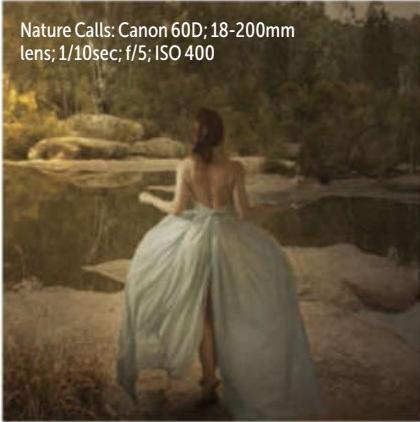


Restricted: Canon 60D; 18-200mm
lens; 1/5sec; f/4; ISO 200

On The Wind: Canon 60D; 18-200mm lens; 1/1000sec; f/5; ISO 800



Nature Calls: Canon 60D; 18-200mm lens; 1/10sec; f/5; ISO 400



Freedom: Canon 60D; 18-200mm lens; 1/200sec; f/4; ISO 500

“I like to tap into a different emotion each time, be it loneliness, vulnerability, sadness or strength”

Returning home, I set about uploading the images into Lightroom. I usually can't wait to see them on a larger screen; I get so excited for what I am going to create.

I try not to edit them in Lightroom too much; I like to tweak colour etc at the end of the process. I look for images that have the most movement, natural colour and texture from the background, together with the sharpest quality.

When I have chosen the images I wish to use, I open them all up in Photoshop and set about building the image. On the shoot I may have taken numerous shots of a moving

piece of fabric or an eagle in flight, so I need to make sure these images are good and easy to composite into my final image.

Overall, the driving force behind my conceptual images is to evoke emotion. I like to tap into a different emotion each time, be it loneliness, vulnerability, sadness or strength. The essence of my images is extremely feminine. I see women as intricate and beautiful beings who tend to become the women they are based on experiences they have had in their lives.

Even though these are all self-portraits, I chose not to show my face in the images.

Kellie's Five basics to avoid

1. HARSH LIGHT OR LOW LIGHT: If you're doing the sort of work I do it makes it really difficult to edit your images. I prefer to take my photos in the light that works for the images I like to create.
2. NO BATTERIES! Make sure you charge your camera and take extra batteries for the equipment you use. There's nothing worse than arriving at a location and running out of battery/power when you are right in the middle of a creative frenzy.
3. A BAD CHAIR: If there's one thing you to spend a little bit of money on, please let it be the chair in which you sit and process your images! Sometimes it takes many hours sitting in your chair editing, so you want to avoid choosing a bad one.
4. COMPLACENCY: Never be afraid to change it up and never become complacent! Change your perspective, motion, and height from where you are shooting. Doing something different to what you would normally do can create dramatic effects
5. SMALL MEMORY CARDS: Make sure your memory cards are large enough to store the images that you are taking so you don't run out of room.

That idea began as a challenge to myself, to portray an emotion with my body, movement and costume. Later it evolved as a theme that I warmed to. I realised that it creates the opportunity for the viewer to see and feel themselves in the image, rather than trying to connect with the subject.

The whole intent with my photographic art is storytelling. Rather than reading words, I invite the viewer to evoke their imagination, to place themselves in the scene or situation and connect with the story that way.

The future

A deep hope for my photography is, with the images I create and or concepts that I am trying to portray, that I am able in some way able to help people connect with something within themselves and in turn allow them to walk away with a quiet smile or a feeling of knowing they are not alone on their journey.

In the future, I would love to see my images hanging in a gallery somewhere, be it small or large, and to be recognised as an artist in my field by my industry peers.

As an artist I really just want to continue creating images and pushing myself to different levels, learning new and interesting techniques along the way – and sharing stories within this exciting and ever-changing industry.

Kellie's limited edition images are available for purchase, so to see more of her amazing work, check out kellienorthcreative.com.au

Kym & Tonya Illman

Africa on Safari

In this riveting extract from their upcoming book *Africa on Safari*, Perth photographers Kym and Tonya Illman reveal the lengths they went to in order to capture the continent from a unique perspective.



Eland racing towards Tonya: shot with a Canon 5DMkIII; 300mm lens; 1/8000sec; f/4.5; ISO 1000



Kym & Tonya Illman

1. Buffalo meet buggy: 5DMkIII; 400mm lens; 1/2000sec; f/6.3; ISO 500. 2. Enquisitive lion close-up: 5DMkIII; 300mm lens; 1/320sec; f/8; ISO 1600. 3. Kym and Tonya Illman, enjoying life's great safari.

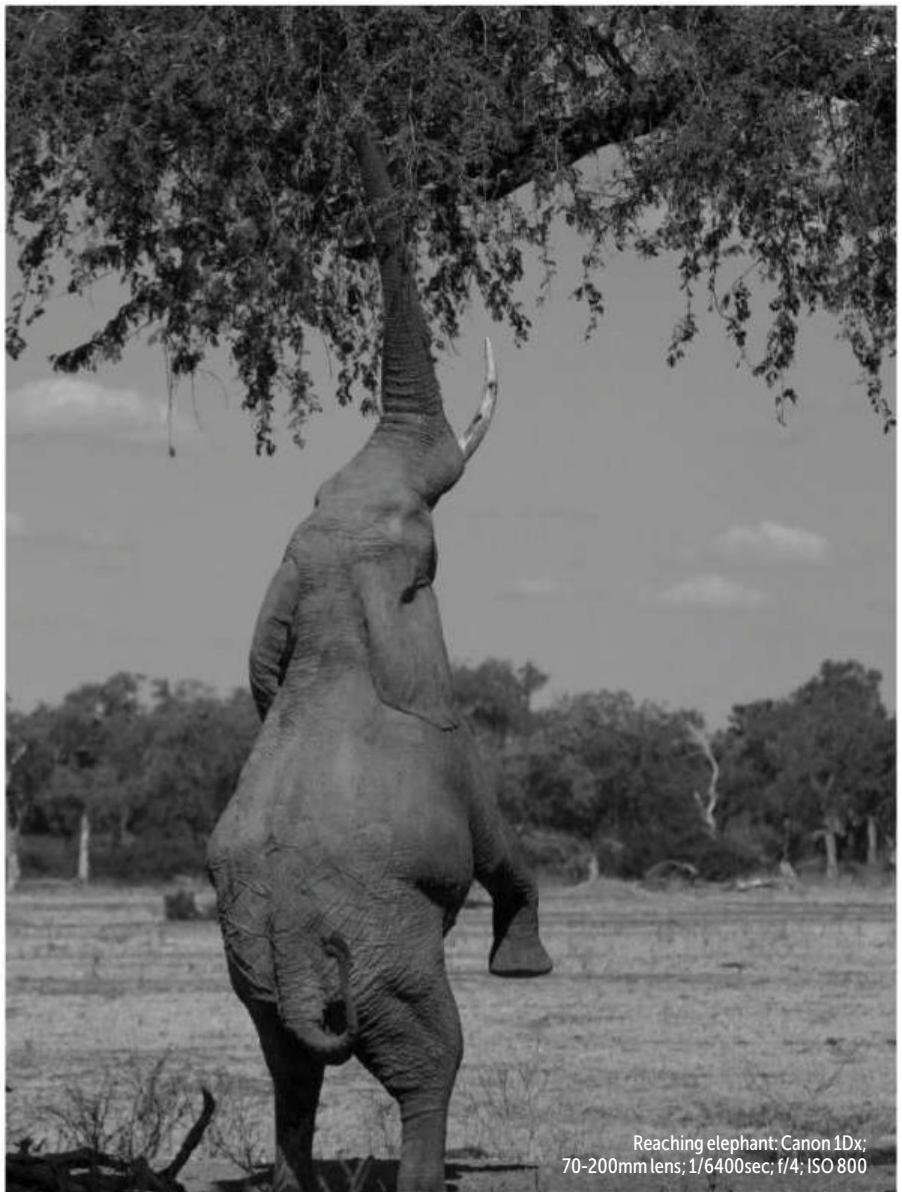


Everyone remembers their first game drive. For Tonya and me, it was in Kenya's Nairobi National Park some years ago on a one-night stopover en route to Tanzania. We set out from the camp as the sun peaked above the horizon, excited and with high hopes.

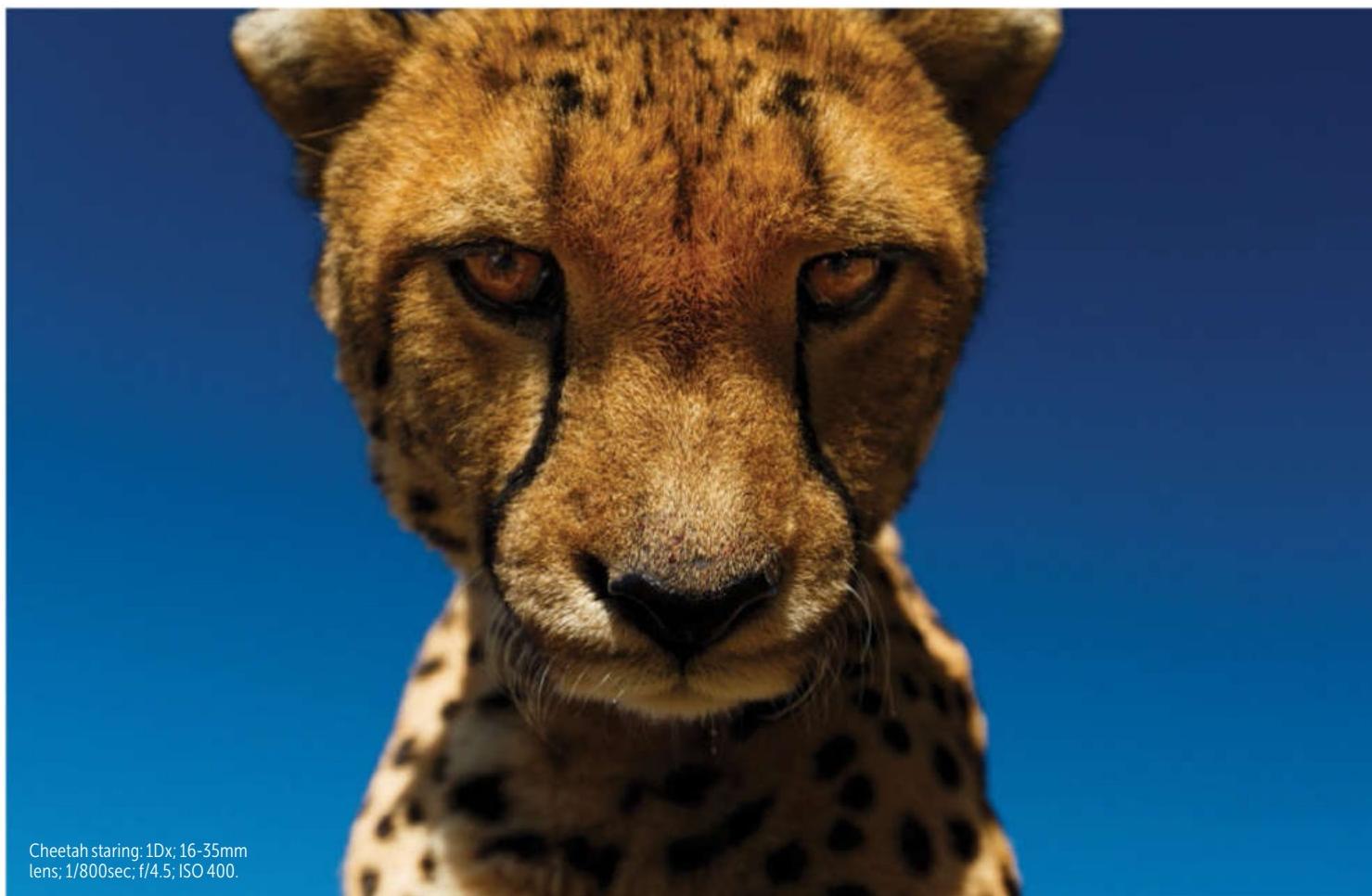
I have to admit, I was not always fascinated by safariing. In fact, Tonya had spent the best part of 20 years trying in vain to get me to join her on a safari. She had done one in South Africa as a 21-year-old and thought I would love it, but for decades I declined the offer. Then one day, she called me at work and said, "I've decided we're taking the boys (then aged ten and 12) on safari in South Africa. I've booked flights for the four of us; you can book the accommodation."

Resigned to the prospect, I scoured the net and, being a passionate photographer, bought a number of African wildlife photography books. I quickly became aware of the awe-inspiring photographic opportunities that a safari offered and decided I would embrace the trip. I'd bought Nick Brandt's book, *A Shadow Falls*, and was captivated by his black and white images of elephants on the open plains. The wide open vistas that he had so brilliantly captured just did not exist in South Africa, so I decided we would all head further afield to East Africa for our first foray into the world of safariing.

As we headed back to our tent in the Nairobi National Park on that very first game drive, we were a little disappointed we'd failed to spot any lions. Then, within sight of the camp, we rounded a bend to see ahead of us a lioness standing proudly atop a stone road sign. She turned her head towards our vehicle and gazed at us for some time. We all raced for our cameras, which we'd



Reaching elephant: Canon 1Dx; 70-200mm lens; 1/6400sec; f/4; ISO 800



Cheetah staring: 1Dx; 16-35mm lens; 1/800sec; f/4.5; ISO 400.

"We realised our images had to be different. We needed to find fresh, unique perspectives in order to tell the tale"

foolishly packed away, thinking the drive was over. Thirty seconds later we started photographing her, and then my youngest son spotted another eight lions lying on the road to her left. It was a lion bonanza, and on our first game drive. Much like a punter who has a big win with their first bet, I was hooked on safariing.

The moment we returned to Australia, we started researching our next trip – and less than six weeks later a Safarilink Cessna Grand Caravan delivered us back to Kenya's Masai Mara for three more weeks of safari photography. Since then we've spent around 12 weeks a year photographing this most amazing continent, staying at more than 34 camps in six countries – and we've only covered a fraction of it.

Initially our photography was only ever intended for our eyes. We viewed the time in the safari vehicle as a great opportunity to hone our photographic skills while enjoying all that a safari has to offer. Neither of us had any formal photographic training, so we were forced to learn from our own mistakes – and there were plenty in the early days. As with any pursuit you immerse yourself in, you improve and given we were

spending nine or ten hours a day, 12 weeks a year photographing around Africa, our improvement rate was dramatic.

A unique perspective

It's fair to say that the vast majority of wildlife safari photos are taken from the top of a vehicle looking down on an animal. This is because it's the easiest and most comfortable way to shoot. We, like most others, took the same easy route on the first couple of safaris and ended up with the same sorts of shots most people come away with. Of course, if what we were photographing was amazing – such as a gazelle giving birth while being chased by a jackal – the angle would be insignificant. But when faced with a simple shot of an elephant or lion going about its daily routine, we realised our images had to be different. We needed to find fresh, unique perspectives in order to tell the tale.

After a few safaris, we gained enough confidence to try new angles. We left cameras packed in elephant dung near dead animals and programmed them to fire off at one-second intervals. We attached remote-controlled cameras to tree trunks

and operated them from a distance. Cameras were mounted on quadcopters for overhead shots and we even had a remote-controlled camera buggy custom-built to house a top-flight DSLR. Moving beyond shooting from the roof, trying new angles and getting close enough to use wide-angle lenses had a profound effect on our images, turning good into great in many instances.

However, the notion for this book didn't come about until early 2014. By that time we had amassed a sizable catalogue of book-worthy images, and whenever other camp guests saw them (mainly while we were editing the day's images in the camp lounge) we were encouraged by their feedback. In particular, they wanted to know how we got the shots and what equipment was used: the behind-the-scenes story.

Knowing the risks

I speak with a lot of safari enthusiasts and am always keen to find out what it is that brings them to Africa. Many like the rawness of the experience but most tell me it is the thrill of being close to wild – and let's face it – dangerous animals. An unprotected human has little chance against an elephant, lion, buffalo, hippopotamus or leopard. Being just a few metres from one of these animals makes the heart race; you know you're alive.

Spending time on safari is not without risk, and we have had our share of close calls. Tonya was walking back to the tent



"We weren't so lucky with one adult male lion who put his teeth through the rear screen of a Canon 5DMkII"

at a camp in the Okavango Delta one morning when she disturbed a huge bull elephant. She only became aware of its presence when he trumpeted loudly from behind a small shrub a few metres away. She remained calm and moved away slowly but remembers the event vividly to this day.

I could have ended up in a hippo's mouth one evening in Tanzania's Selous Game Reserve. My guide had pulled our boat up to the bank of the Rufiji River so I could go up onto the bank for a sunset shot. He scanned the flat, sandy surrounds and suggested it was safe to walk 100 metres up to the point. It was hard going in thick sand, so I stopped halfway. This decision could well have saved my life as a minute or so later a hippo emerged from a sand hollow 50 metres behind me and raced back into the river.

If I'd kept walking I would have been between the river and the hippo. There is a fair chance it would have dealt with me in much the same way one dealt with Musango Island camp owner Steve Edwards; he was nearly bitten in half by a hippopotamus after walking his guests back to their room. The animal picked him up and carted him some distance before dropping him, unconscious, and heading off into the night. His scars tell the tale of his ordeal.

Tools of the trade

In photographic gear alone we take in excess of 70kg on each trip. In fact, according to our guide, Paul Kirui, only the BBC brings more. On a typical safari we use every lens at least once, but rely primarily on just a few. I have a Canon 200-400mm

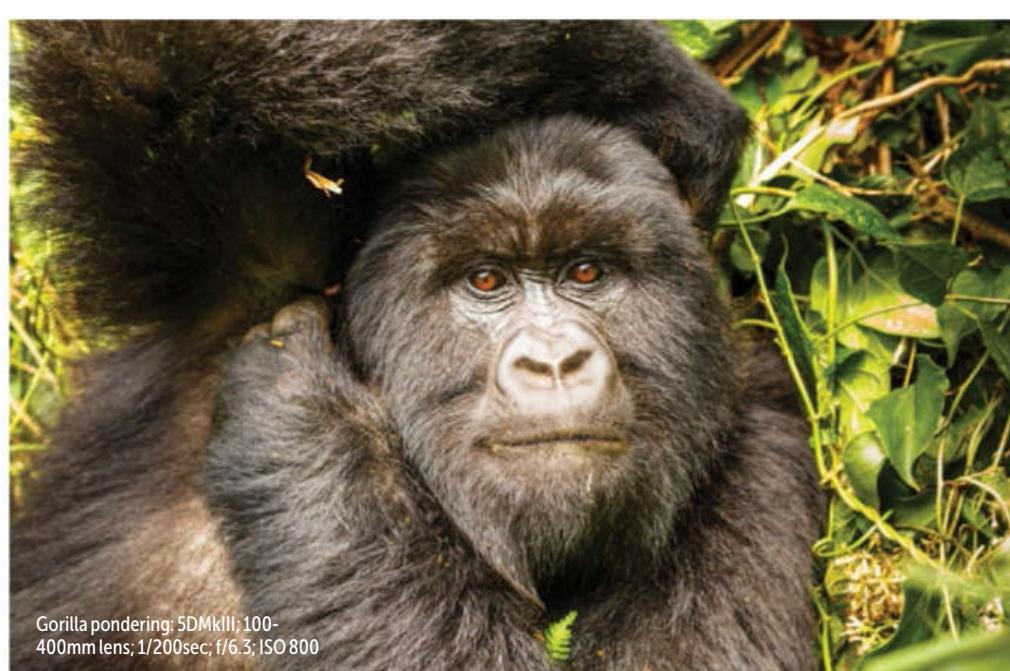
lens on my 1DX and a 70-200mm on one of the four 5DMkIIs we carry. Tonya will have a fixed 300mm on a 5DMkIII and a 100-400mm MkII on another.

The final 5DMkIII is fitted with a 16-35mm lens loaded in the camera's water housing and mounted, ready for action, to a remote-controlled camera buggy we had made by New Zealander Carl Hansen. We have a 500mm lens on a Canon 7D, giving us 800mm effectively, and the remaining Canon 6D has a 24-70mm lens. We carry a handful of other Canon lenses including a 135mm f/2, 14mm f/2.8 and 24mm f1.4 lens for low light and shallow background shots, plus a 100mm macro and an 8-15mm fisheye.

With this many cameras, it's vital to sync every one of them to the local time, down to the second. We also carry more high-speed



Lion selfie: 5DMkIII; 14mm lens;
1/640sec; f/2.8; ISO 500



Gorilla pondering: 5DMkIII; 100-
400mm lens; 1/200sec; f/6.3; ISO 800

memory cards than we're likely to use, and for cameras that take CF and SD cards, we set the camera to shoot to the CF card. The SD card has a much slower write speed and will buffer sooner than a CF card. Shooting to the SD card can cost you shots when shooting in high-speed mode.

We carry a tripod that converts to a monopod. The Lion Selfie (above) would not have been possible without the monopod; it allowed us to position the camera in front of a sub-adult lion approaching our vehicle, without endangering ourselves.

Getting amongst it

While most safari photographs are taken from a vehicle, there are some instances when you can shoot on foot. We stayed

at a private reserve in Tanzania where we were able to photograph zebras and elands running towards us while on foot using small trees for cover. You know you're alive when you have a couple of hundred of these animals thundering towards and past you.

Another way to shoot low-angles safely is to use a hide. At Mashatu Lodge, Botswana, a sea container has been buried near a waterhole. Instead of searching for animals, they come to you – a much more comfortable way to shoot.

Most people, and many animals, are intrigued by the remote-controlled camera buggy: sub-adult lions love it; adult males are mostly disinterested; lionesses can go either way; and the cubs won't do anything without Mum's approval. Wild dogs are interested but approach it warily and

cheetahs pay no attention to it; they simply walk away. Leopards normally do the same, with the exception of a confident young South African female who took a shine to it. Elephants will approach it but quickly lose interest, while giraffes and zebras run away from it.

We use the buggy sparingly, only with animals that are relaxed, only with the approval of the guide or game reserve manager, and never in the presence of other vehicles. The animals you see in the presence of the buggy have generally approached it. We, along with all the guides and camp managers we have worked with, are mindful of not invading their personal space.

For the best photos, we do not use the buggy early or late in the day as it can cast

Impala relaxing: 1Dx; 70-200mm lens; 1/320sec; f/5; ISO 1250



“We used the quadcopter with giraffes on a private reserve; they typically stared at it until it flew too close, then moved away”



Giraffe at eye level: GoPro Hero3;
1/470sec; f/2.8; ISO 100

shadows on the animals. It's also pointless putting it out if the animal is in shade and the sky is too bright. Only a few lions have absconded with it – and in those cases, once they realised it wasn't edible, they abandoned it within a couple of minutes (thankfully, as it's worth more than US\$10,000 when fully outfitted).

When setting up the remote-controlled buggy camera we take into account the height of the grass in the area. We normally use the camera's broad autofocus setting. However, if the grass is high enough to affect the autofocus, we set the camera to manual focus at just over a metre for cats and five metres for elephants and giraffes. We typically shoot in Av mode at f/5 and set the ISO to 500 to get a shutter speed of at least 1/200sec.

Before we bought the buggy, we placed cameras on tripods near lions. They would approach them gingerly but most would just sniff or lick them to establish if they were edible. We weren't so lucky with one adult male who put his teeth through the rear screen of a Canon 5DMkII a couple of years ago. It still took photos but the images could not be seen on the screen.

We've used the quadcopter on a couple of trips, mainly for wide-angle shots of large buffalo herds and for landscape shots. We used it with giraffes on a private reserve; they



Pride examines the buggy: 1Dx; 70-200mm lens; 1/1000sec; f/5; ISO 500



Lion shaking his mane: 5DMkIII; 16-35mm lens; 1/3200sec; f/5; ISO 400

typically stared at it until it flew too close (around ten metres), after which they turned and moved away. The use of these devices in a number of countries, including Kenya and South Africa, has recently been limited.

In Zimbabwe, we knew elephants drank at certain waterholes so we planned for some low-angle drinking shots. Arriving before the heat of the day, we buried a Canon 5DMkIII in its water housing at the edge of the waterhole. We had a remote transmitter that sent a signal to a receiver connected to

the camera, and from 50m away we could shoot super-sharp images of elephants from our vehicle without disturbing them. They could see the glass lens port but while they no doubt recognised it as something alien and sometimes sniffed at it, they were never concerned by it.

Before it's too late

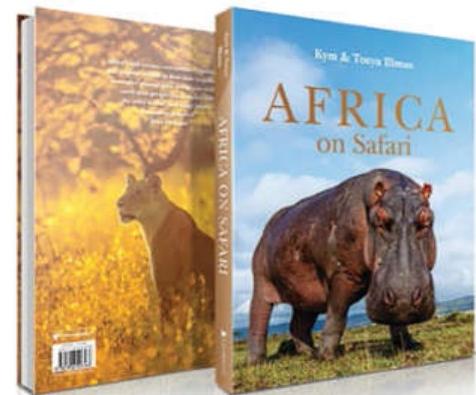
There is little doubt that Africa is changing, and because no-one knows what the landscape will look like many years from

now, I would urge you to see it sooner rather than later. Whether you take a Canon 1DX with a 600mm lens or your iPhone, you will see amazing scenery and wildlife and return with images you will treasure for years because you were there when it happened.

Our journey has been an incredible one and we have seen a multitude of things we never thought we would witness. Perhaps the greatest thing about wildlife photography is that you never know what's around the corner.

It has been an absolute pleasure to share with you some of our most treasured and striking images of Africa's spectacular wildlife. Without doubt, there is nowhere else in the world that puts on a greater show.

For more information and to purchase *Africa on Safari*, check out kymillman.com/aoa



Simple + Beautiful

CANBERRA'S **SHANX BOSE** FLEXES HIS PHOTOSHOP FINGERS ONCE AGAIN TO PRODUCE THIS SIMPLE YET BEAUTIFUL COMPOSITE IMAGE WORTHY OF ANY GALLERY...

In this intermediate-advanced tutorial I will show you how to create a beautiful, elegant hyper-real wedding portrait – an image your clients will be proud to hang on their wall. A number of talented folks from

Canberra came together to collaborate on this project. I would like to thank Archana Milani-Rohra for being our beautiful model for this shoot, Mary Brodbeck of Ferrari Formalwear & Bridal for the gorgeous

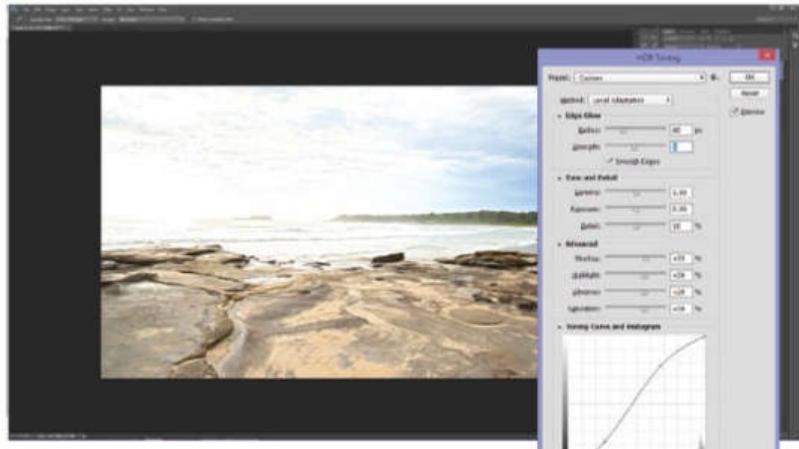
wedding dress, Kathryn Molloy of KMmakeup for her amazing make-up skills, Rebekah Graham as our wonderfully talented hair stylist and Emma Bose for her assistance with the shoot. Now, let's get started.



PREPARE THE BACKGROUND



1 Start by opening the main background image of the rocks on the beach in Camera RAW. Take the highlights and whites down to recover some of the sky detail. Select OK. Add this in the BG group (CTRL+G).



3 Add a layer mask by pressing ALT (for an opaque mask) and the layer mask icon at the bottom of the layers panel. Select the gradient tool and ensure a linear gradient is selected. Bring in the rocky part of the image by clicking at the bottom and tracing a gradient line to the middle of the image. This should pop the rocky areas with colour and detail.



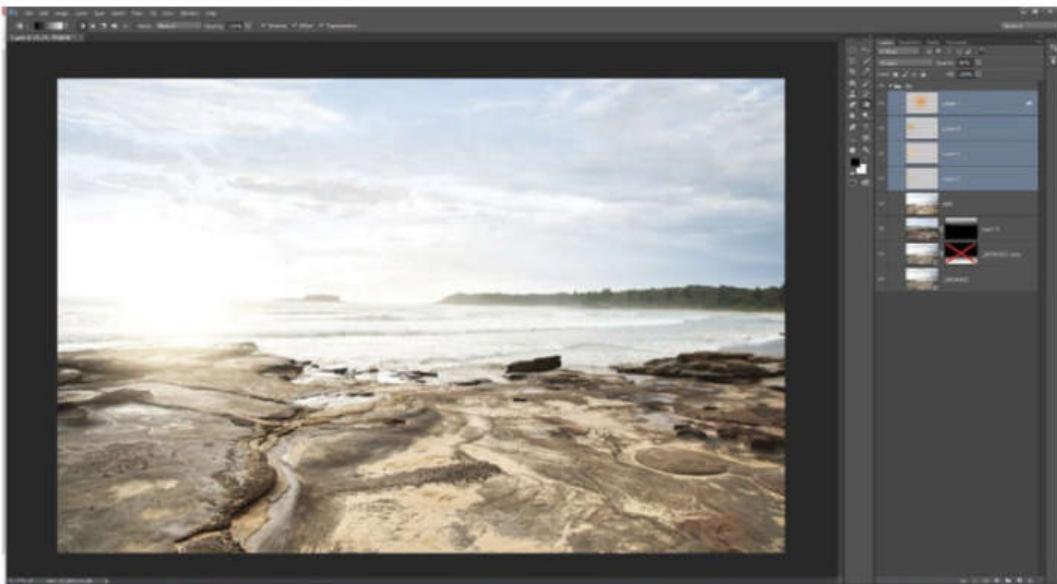
2 Duplicate the image. Select Image/Adjustments HDR toning. Accept the option to flatten the document. Adjust the settings as shown and select OK. Select the layer (CTRL+A) and copy it (CTRL+C). Press CTRL+ALT+Z repeatedly till the layer in step 1 appears. Now paste the copied HDR layer (CTRL+V).



4 Copy the layer from step 3 again, and remove the layer mask. Add another layer mask pressing ALT and the layer mask icon as before. This time, mask in the top part of the image, so more sky detail and colour come in.

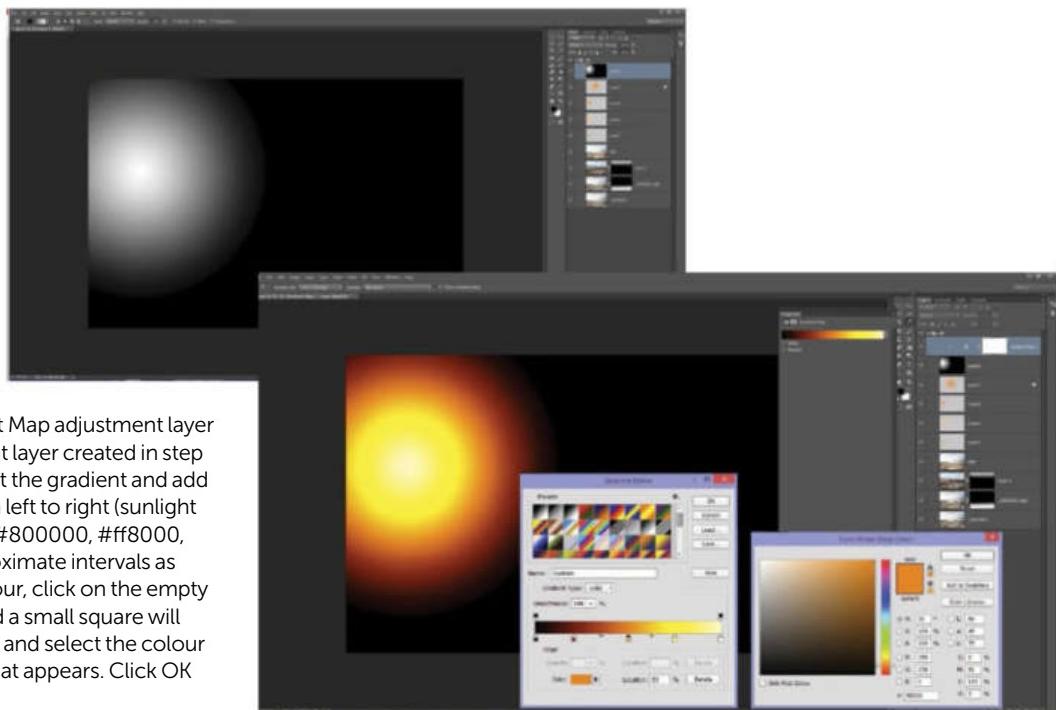


5 Create a stamp of the images so far by pressing CTRL+ALT+SHIFT+E. Rename the layer to HDR. Select Image/Adjustments/ Shadows & Highlights. Bump up the mid-tone contrast and shadows for a bit of pop.



6 Let's now add a bit of light leak and haze from the sunlight in the background. Add a series of 4 layers, all set to SCREEN blend mode. On each layer, using a soft brush select varying shades of orange or yellow and daub some colour on the brighter part of the image, where the sun would be. Use as much or as little brush strokes as you see fit with the right shade of orange/yellow you prefer to taste.

7 Let's now finish off with the golden sunlight. Add a transparent layer and fill with black (Edit/Fill/Black). Select the Gradient tool followed by the Radial Gradient style from the Gradient Tool styles bar under the main menu and draw a line from the centre of the light source in the image to where you want it to stop radiating. This might take a few tries.



8 Now create a new Gradient Map adjustment layer and clip it to the transparent layer created in step 7 by pressing CTRL+ALT+G. Edit the gradient and add the following stop colours from left to right (sunlight colours), as shown: #000000, #800000, #ff8000, #ffff00 and #ffffc0 at the approximate intervals as shown. Note: to add a stop colour, click on the empty area beneath the colour bar and a small square will appear. Double click the square and select the colour from the colour picker dialog that appears. Click OK for all dialogs.



9 Now, set the layer in step 7 to the SCREEN blend mode for a surreal sunset effect. Select the two layers in step 7 and 8, right click and MERGE the two layers. You will have to set the blend mode back to SCREEN after the merge.

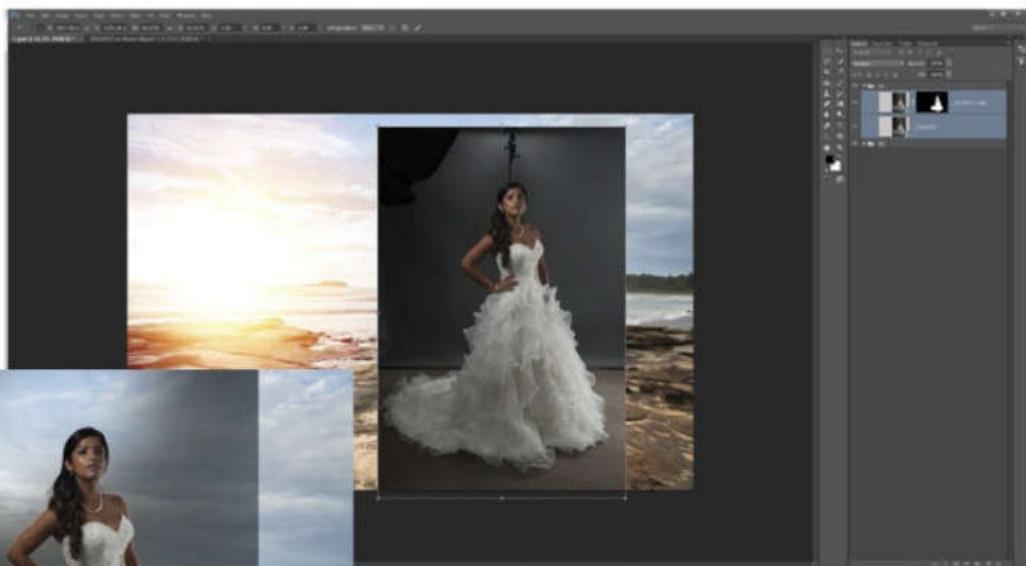
10 We're almost done with the background plate. For a bit of drama let's duplicate the group BG. Collapse the group, select it, right click and select Duplicate Group from the menu. This will create the BG Copy group. Set the blending mode of this group to MULTIPLY, and set the opacity to 30%. Select both the groups, and select CTRL+G to put them in a new group. Call this group BG. We're done with the backdrop!

PREPARE THE BACKGROUND



11 Open up the image of the model (Archana) as a smart object (in camera raw, before selecting 'Open Image', press SHIFT and click the button that now says 'Open Object'. For the lighting setup, I used a softbox at camera left, a hair light using gridded reflector pointed downwards at camera top and a large silver umbrella at camera right. Duplicate the layer by right clicking it and selecting 'New Smart Object via Copy' and select the topmost layer. Use the quick selection tool to select the subject – don't worry too much about making it perfect. With the selection on the image, click the Add Layer mask button and you should see the image masked out.

12 Select the Move Tool and with both layers selected, drag and drop it into the tab (workspace) where we created the BG groups. Put the two layers into their own group, called FG (Foreground) by selecting them and pressing CTRL+G. With both layers still selected, press CTRL+T for transform. Position the image correctly on the right side on the rocks and resize it to scale.



13 Set the bottom layer's blend mode to HARD LIGHT. Add a layer mask and mask out the gray areas using a soft brush. Go carefully around the hair areas to bring back some of the hair detail.

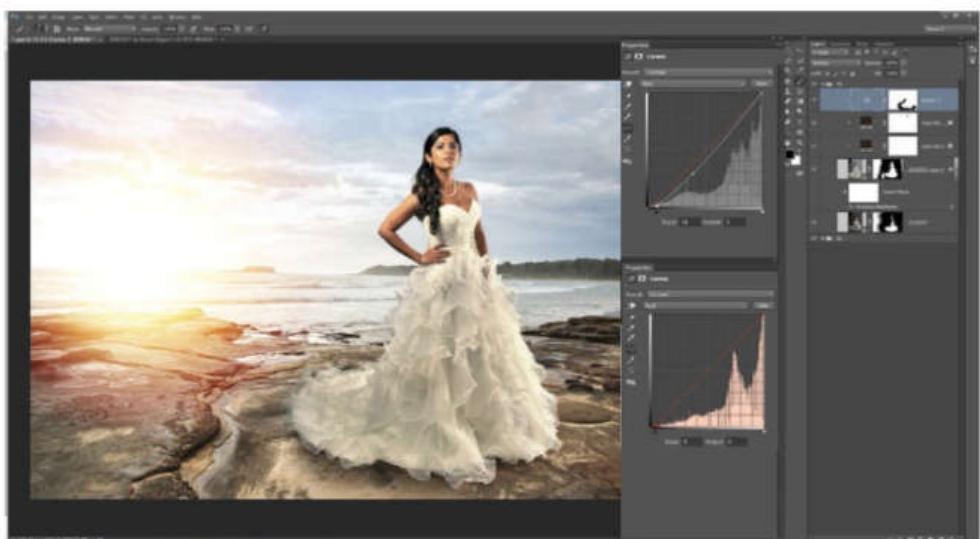
14 Now select the top layer, and from the main menu select Image/Adjustments/Shadows & Highlights. As this is a smart object layer, this will add a Smart Filter. Bump up the shadows/highlights and the midtone contrast to taste, but overall the image should be lighter so it fits in with the bright background.





15 Add a new Solid Color adjustment layer. Clip it to the top layer in step 14 by pressing **CTRL+ALT+G**. Double Click the adjustment layer and select a dark brown colour. Set this to colour dodge. We're basically mimicking the light of the (artificial) golden sun on the dress. Duplicate this adjustment layer (right click and select **Duplicate Layer**) for a bit more intensity. Mask off some areas of the face where it might be too bright to recover the highlights and skin detail.

16 Let us do some colour toning and increase the contrast with the background. Add a new Curves adjustment layer. Clip it to the below layers (**CTRL+ALT+G**). Double click for the Curves properties and bring the midtones down a notch in RGB mode. Also introduce increase shadow strength by clicking the bottom leftmost point on the curves display and dragging it a little to the right. Now select the REDS from the Curves menu. Click the bottom leftmost point as before and drag it a little to the right. This will take the reds in the shadows down by introducing CYAN in those areas. Mask off the edge of the dresses to recover the brightness, as they will go dark during the curves adjustment, which is not what we want.



17 The edges of the dress are still too dark. To fix this, add a transparent layer (select **Layer/New Layer** or **CTRL+SHIFT+N**) and set the blend mode to **SCREEN** at 75% opacity. Clip it to the below layers (**CTRL+ALT+G**). Using some orange-red colours from the swatch, trace the edges of the dress with a very soft brush to lift up the brightness.

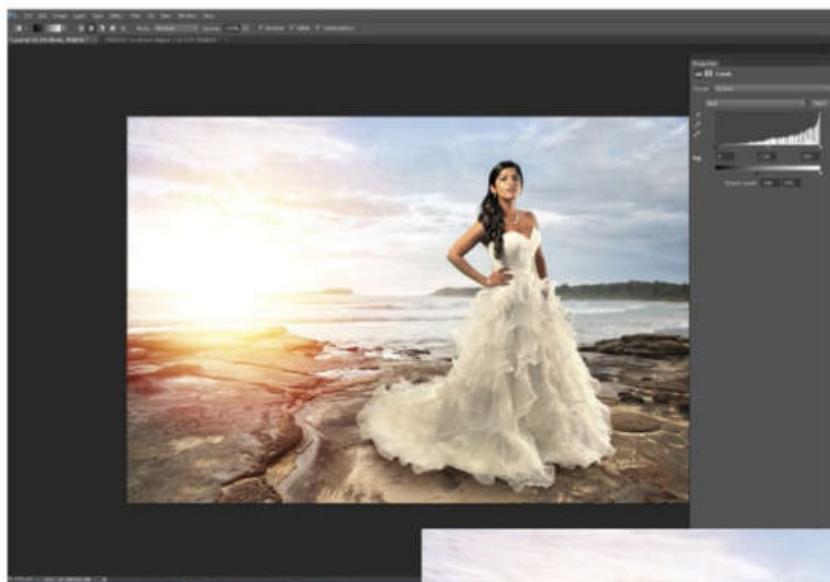
18 We can improve on the dress edges by providing a soft light yellow glow. Add a transparent layer as above, but set the blend mode to **SOFT LIGHT**. Clip it to the below layers (**CTRL+ALT+G**). Using an orange-yellow colour from the swatch, paint over the edge of the dress as before with a very soft brush.



19 Finally, let's fix the hair to reflect the colours of the yellow sunlight. Add a new transparent layer as above, but set the blend mode to COLOR DODGE at an opacity of 80%. Clip it to the below layers (CTRL+ALT+G). Select a dark brown colour from the swatch and paint over the white highlights of the hair to turn them golden yellow.



20 Let's add a few finishing touches. First, add a red flare in the sunlit area on the left. Add a new Levels Adjustment Layer. Double click the layer for the Levels properties. Select RED, and move the left slider point towards the right to increase the RED output levels. This will turn the whole image red but we want it localized to the sunlight areas. Select the white mask and press CTRL+I to invert it to an opaque mask to hide the reds. Select the Gradient Tool and from the gradient style under the main menu, select Radial Gradient. Trace a line from the centre of the where the sun is to the middle of the image to bring the reds back into that area.



21 We're pretty much done! For a bit more surrealism, add a couple more transparent layers above the layer in step 20. Set the blend modes of both to SCREEN. Select an orange colour from the swatch and using a large soft brush, daub in some paint over the sun area to flare out the light even more.



22 To complete the image – and as a final touch – the image would look even better if we have some haze showing between the model and the background for atmosphere. So between the FG and BG groups, introduce a new group (CTRL+G) and call it HAZE. As before, create another transparent layer and set it to SCREEN blend mode at an opacity of 20%. Using a light orange colour or by sampling the colour from a lighter area in the background, daub some paint using a soft brush.

For more wall-worthy works from Shanx Bose and his team, check out Facebook.com/maxphotography.au



23 We're done! The final image is worthy of hanging on the wall.



SUPER FLEMISH

WHAT WOULD A 16TH CENTURY SUPERMAN WEAR? OR WHAT IF THE HULK WAS A DUKE? JORDAN BUTTERS SPEAKS TO PRO PHOTOGRAPHER SACHA GOLDBERGER ABOUT HIS SUPERLATIVE PROJECT THAT REFORMS MODERN FANTASY FIGURES

Words: JORDAN BUTTERS

PARIS-BASED COMMERCIAL photographer Sacha Goldberger is no stranger to tackling the unusual. Driven by his own curiosity, his personal projects are often easily identified by their high production value, tongue-in-cheek humour and no-expense-spared execution. You might remember him from his *Super Mamika* series, which thrust Sacha's then 91-year-old grandmother into the limelight as the fictional superhero, Mamika. "With my *Super Mamika* series I explored the idea that anybody could be a superhero, even my grandmother," Sacha explains. "Then, three years ago, I created a series of portraits of girls and animals inspired by 16th Century Flemish paintings. In doing so I studied the Flemish style of portraiture intensely and learnt a lot – from the background to the costumes, the poses, expressions and lighting – I examined and replicated everything in great detail."

While on the look out for a new project, Sacha was approached by the prestigious School Gallery in Paris and asked to put together a collection of work for an exhibition. After some consideration, Sacha had the idea of imagining what popular 20th Century superheroes would look like if they'd been around during the 16th Century. Combining the aesthetics, ideologies and perceptions of two points in time and

two very different cultures, with Sacha's high-end execution, *Super Flemish* was born. Spanning cultural gaps, this project appeals to a wide range of people – from highbrow art admirers perusing pristine Parisian galleries to your average comic book fan discovering the series on any one of the countless international news websites that the series has graced. After all, who wouldn't want to see Darth Vader lovingly petting an ATAT puppy, Ironman posing patiently for a painter's brush strokes or the Hulk in a ruffled collar looking pensively at the ground?

Sacha loves to play with juxtaposition. You only have to look back at *Super Mamika* to see that his perfectionist approach to answering unusual 'what ifs' guarantees intriguing results. "I enjoy mixing things that don't belong together," he reveals. "We're used to seeing these American cultural icons as tough, strong characters on the silver screen. They are elevated to a higher status than those around them. But when you mix them with the European romanticism of Flemish paintings, there's a lot of contrast at play. I love the contradictions between the superhero and humanity, sci-fi and art, invincibility and mortality, physical strength and quiet contemplation. These strong characters expose their vulnerable side when presented in pensive poses, period outfits and soft lighting." ➤



WITH SO MANY POTENTIAL characters to pick from, the first challenge for Sacha was choosing which superheroes to portray, a hurdle that was surprisingly easy to overcome. "I believe that it's important to take on projects that reflect the things that you enjoy," he explains. "I love the graphic nature of superheroes, and I chose my favourite incarnations of my favourite characters for this project, many of which came from my childhood. For Superman, it had to be Christopher Reeves – he was the best in my opinion, and I chose to do the old Hulk, rather than the latest version. There were some compromises: I wanted to use Batman from the 70's TV show to match the 70's Robin that we found, but we couldn't find the right actor, so we settled on a Christian Bale look-alike. The Joker was a tough choice for me – Jack Nicholson is my favourite Joker but Heath Ledger's portrayal was legendary, so I went with that one. Also, I'm a massive *Star Wars* fan, so I knew I had to include some of the best characters from that saga, too."

It's one thing coming up with a unique take on popular culture and making it a reality, but it's Sacha's flawless execution that demands admiration here. This is further amplified when you understand that 90% of what you see in *Super Flemish* is real – the costumes, the make-up and the people. It certainly wasn't the easy route, but if you're familiar with Sacha's work you'll already know that he's not one to do things by halves. *Super Flemish* took two

years and a team of over 110 people to see through to completion. "The problem with a project like this is that it can look fake very easily," Sacha explains. "I didn't want to make it look like we had found a bunch of look-alikes and put them into bad party costumes – I wanted it to seem as if we had the real actors from the movies. We had to cast the right people and create the costumes from scratch. From my previous Flemish work I already knew a lot about the right fabrics and textures to use, but with this project I had to strike the balance between new and old. Take Wonder Woman for example: her character is very strong and sexy – she wears small hotpants and a lot of make-up; the polar opposite to the style in the 16th Century. Without those characteristics she doesn't look like Wonder Woman, but go too far and she doesn't fit in with the Flemish style – it was very difficult to find the right balance."

Sacha enlisted the services of French costume designer Jackie Tadeoni and her team of five dressmakers to expertly sketch out and then create the handmade costumes for the project. They carefully selected period-true fabrics, while he and his casting director went in search of finding the right people to fill them. A call out on social media and he was soon inundated with applicants: "We had applications from look-alikes from all over France – it was a stringent selection process that took around eight months in total. We wanted to get as much right in camera as possible, with minimal CGI or Photoshop. Some of the people that we



Inset above: French designer Jackie Tadeoni's sketches of the costumes she was to create from scratch for Sacha.

found looked remarkably similar to their characters, and some we had to compromise on. The lady who played Princess Leia only had hair and make-up done. Others, such as the Hulk and the Joker involved hours in make-up and applying prosthetics, much like the actors would have had on set. We only resorted to Photoshop when there was no other choice – we would warp the mouth or nose slightly and sometimes that's all that it would take. Superman had the most Photoshop work done as the guy didn't end up looking like Christopher Reeves."

With the cast taking shape it was Sacha's turn to apply his expertise as a professional photographer to achieve the right lighting, pose and look for each image. Mimicking the 16th century Flemish painters, Sacha used heavily diffused side lighting. ➤





"It took a lot of time and effort because when you exhibit your images you open yourself up for criticism"

"The lighting in Flemish portraits is very consistent, and it's something that I studied in detail. I wanted a chiaroscuro effect: lots of shadow, but not too dark, so alongside a large, diffused key light I used a second, diffused light on the opposite side to gently fill in the shadow detail. Of course lighting varies so much from person to person and what works for one face doesn't for another, so I would adjust my set-up slightly for each new character. I gave each subject direction on their pose and posture – the subjects in Flemish paintings are very straight and pensive. The exception was the Joker – he slipped perfectly into character and was acting like a mad man on set. I love how his pose turned out – it's more the Joker than Flemish, but it works well."

With so much time and effort having gone into the project, asking Sacha to pick his favourite image is like asking a father to single out his favourite child, but I push on all the same. Surprisingly, he's quick to answer: "I actually have three favourites that I have displayed in my house. The first is

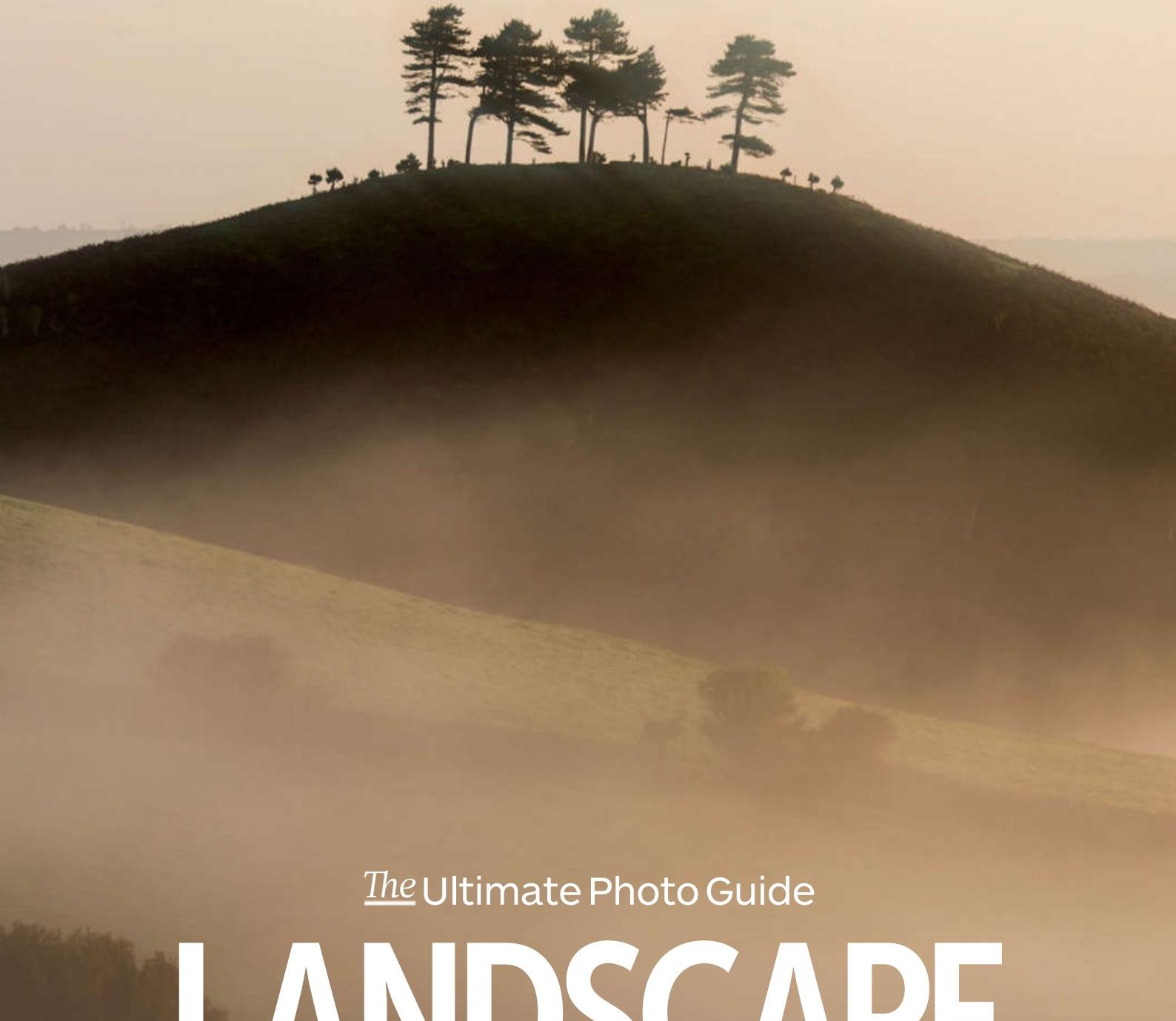
the Joker. The second is Catwoman as it was the first portrait that I shot – I love the image of her looking down at the ground peacefully. Finally, the Hulk – I love the contrast between the strength of the character and the weakness and emotion revealed in the image."

Sacha's incredible attention to detail has paid dividends yet again, with *Super Flemish* a roaring success both with the gallery and in the mainstream media. There's now talk of further exhibitions in the pipeline, as Sacha intends to take the collection overseas and possibly publish a very limited edition collectors book, too. "Finishing the project was a great feeling," Sacha says with a sigh of relief. "It took a lot of time and effort because when you exhibit your images you open yourself up for criticism. I always try and do things better than the time before but I really enjoy the process of making something the best that it can possibly be – it excites me. I would consider myself a perfectionist." To see more visit: www.sachagoldberger.com



Sacha Goldberger





The Ultimate Photo Guide

LANDSCAPE COMPOSITION

COMPOSITION IS AN AGE-OLD ART. THE IDEA IS TO ARRANGE THE ELEMENTS WITHIN THE SCENE IN THE MOST VISUALLY STIMULATING AND PLEASING WAY; TO COMMUNICATE YOUR IDEAS AND VISION. DECIDING WHAT TO INCLUDE OR EXCLUDE FROM THE FRAME, YOUR SHOOTING ANGLE AND FOCAL LENGTH ARE ALL BIG DECISIONS THAT WILL GREATLY INFLUENCE YOUR FINAL SHOT. CREATING BALANCE AND HARMONY ARE YOUR GOALS AND WITH THE HELP OF THIS ISSUE'S *ULTIMATE GUIDE*, YOU WILL SOON BE CAPTURING BEAUTIFULLY COMPOSED LANDSCAPES

IMAGE: ROSS HODDINOTT





IMAGES ROSS HODDINOTT

HOW YOU DECIDE to frame your shot will either make or break it. Teaching or giving advice on composition is actually a very tricky thing to do, though. It is a creative skill and therefore an intensely personal thing. What one person likes, another will not – you could argue that there is no right or wrong. That said, there are many long-standing and widely accepted compositional guidelines that will help you capture consistently well-composed shots. The rule-of-thirds, foreground interest, and lead-in lines are among the most useful compositional aids – all of which we will be covering in detail within this guide.

The rules will help you organise the elements within the landscape in a logical and aesthetically pleasing way, but there are other considerations, too, that can greatly influence the look of your final image. For example, camera orientation is a big factor. When photographing the landscape, most photographers instinctively opt for horizontal format. This often feels like the most natural orientation, mimicking our own vision and way in which we view the world. It will suit the majority of views, but don't overlook the strength of turning your camera on its side. Portrait format will place added emphasis on foreground objects and help imply depth. It is particularly well suited to tall subjects, like mountain peaks, trees or buildings in the landscape. It can also suit

“THE TRICK IS TO ALWAYS CAREFULLY MATCH THE CAMERA'S ORIENTATION TO THE TYPE OF SCENE YOU ARE PHOTOGRAPHING”

scenes boasting acute diagonal lines. The trick is to always carefully match the camera's orientation to the type of scene you are photographing, instead of framing scenes through habit.

Lens choice is another key decision. Focal length determines the angle of view, greatly dictating how you will compose the scene. Wide-angles have a large angle-of-view, while longer lengths are much narrower. A characteristic of wide-angle lenses is how they appear to stretch perspective, distorting the relationship between near and far objects. Using one will help you integrate foreground elements into your composition. Wide-angle lenses will also allow you to exaggerate the size of nearby objects, which is handy when you want foreground interest to look more dominant in your composition. Longer focal lengths have the opposite effect; foreshortening perspective and making elements within the landscape appear closer together. As you can see, focal length has a much bigger influence on composition than you might first think.

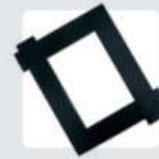
COMPOSITION *Useful kit*



TRIPOD HEAD: A tripod is a vital aid for both stability and framing, and the head you choose is equally important for ensuring your camera is secure and flexible when attached. The Manfrotto 410 geared head is among our recommendations for precise landscape composition.



HOTSHOE SPIRIT LEVEL: If your DSLR doesn't have a built-in virtual horizon feature, buy a dedicated double axis spirit level, designed to attach to the camera's hotshoe. Using one will help you keep horizons consistently straight and level.



FRAMING DEVICE: Some landscape photographers use a frame to help them compose images – typically two L-shaped pieces of mounting board. Hold them in front of you to select part of the visual field, while obscuring other parts. It will help you visualise the best composition.

Top) Placing the key point of interest (in this case a lighthouse) as close to the intersection of thirds strengthens composition. **Right**) Wide-angle lenses are perfect for filling the foreground with interesting elements that lead the eye into the scene.



USING THE RULE-OF-THIRDS

ROSS HODDINOTT EXPLAINS HOW IF YOU'RE TO CONFORM TO ONLY ONE RULE OF COMPOSITION, YOU'LL FIND THE RULE-OF-THIRDS TO BE THE MOST USEFUL

THE RULE-OF-THIRDS is actually quite simple to understand and apply to your photography. Simply imagine two horizontal and two vertical lines dividing the image space into a grid of nine equal parts. Where the lines intersect are said to be 'power points': the points of the image where our eyes most naturally visit. According to the theory, by placing key elements of your composition on or near one of these points, you can capture a more balanced, harmonious and visually stimulating composition. This rule is a much simplified version of a theory called the 'golden ratio', which dates all the way back to the ancient Greeks.

Quite simply, the rule-of-thirds works. Using the grid, you can arrange the different components in the scene, usually beginning with the horizon, which is often best placed on either the top or bottom third line. Typically, you will want to include two-thirds landscape, one-third sky; however, when there is a particularly interesting or dramatic sky, you may wish to place more emphasis on it by including two-thirds sky, one-third foreground. Once you have made this decision, you can begin arranging the other

elements. If there is an obvious focal point, for example a tree, lighthouse or interesting stack of rocks, try placing them off-centre close to or on one of the 'power points'. By doing so you should create a more compelling picture.

If you struggle to imagine a rule-of-thirds grid in the viewfinder, don't worry. The majority of recent digital SLRs have an option to overlay a grid in the viewfinder or during LiveView. This can prove very helpful, so it is worth consulting your camera's manual to find out if yours has this feature.

Like any compositional rule or trick, avoid following it too slavishly. While the rule-of-thirds is probably the most useful and relevant rule to landscape composition, it obviously won't suit every scene. If you try to apply it all the time, your images will look cliché and formulaic. For example, in some circumstances, placing your subject – or the horizon – centrally in the frame can actually create a more striking result; it can create a feeling of symmetry, particularly when shooting reflections. However, if you study successful landscape images, you will notice that many conform to the rule-of-thirds in one-way or another.



1 CENTRED COMPOSITION Although the overall scene is appealing, by placing both the main subject – the castle ruins – and the horizon centrally in the image space it produces a very uninteresting and static composition. Your eye gets drawn and anchored to the castle and doesn't look any further.



2 RULE-OF-THIRDS Placing the horizon on a third, rather than centrally in the frame, immediately improves the shot. Normally, one-third sky, two-thirds landscape is the best ratio. However, in this instance, in order to place weight on the cloud and colour forming in the sky, I opted for one-third foreground, two-thirds sky.



RULE-OF-THIRDS At the coast



LIGHTHOUSE: Lighthouses are dotted all along the coast and provide a great focal point in wide-angle coastal images and, as such, are obvious candidates for being placed on an intersecting third.



GROYNE: You will find coastal defences and tide markers on many beaches. Groynes are surprisingly photogenic and lend themselves to being shot – particularly in combination with a longish exposure.



RUINS: Old fallen-down buildings are subjects that have the potential to add scale and context to wider views. Typically, they will have the greatest impact on composition when positioned on a third.

3 FINAL COMPOSITION

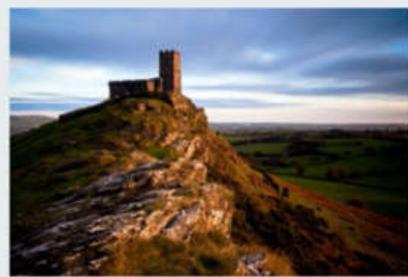
Finally, I also compose the ruins to the left of the frame, which greatly improves the balance of the shot. Your eye still gets drawn to the ruins first, but then it naturally begins to explore the rest of the frame. It is a more stimulating and visually interesting shot.



RULE-OF-THIRDS Rural landscapes



● **TREE:** Landscape photographers can't seem to resist trees. Lone trees, especially, lend themselves to creative framing. Look for skeletal trees stood on the horizon and place it off-centre for strong results.



● **CHURCH:** Buildings within the landscape create an ideal focal point. A church tower or steeple can be a key ingredient when shooting rural views, and are an ideal compositional tool.



● **WINDMILL:** Another strong, obvious point of interest that, positioned well, strengthens composition. It can look striking contrasted against a big sky or silhouetted against the setting sun.

FOREGROUND INTEREST

ADD DEPTH, LIFE AND A NATURAL ENTRY POINT INTO YOUR IMAGES BY USING FOREGROUND INTEREST TO HELP CAPTURE EYE-CATCHING COMPOSITIONS

WHILE IT IS certainly not essential to include foreground interest in your landscapes, more often than not it is beneficial. Not only will foreground elements entice the viewer's eye into the frame, but a good foreground can be the most effective tool for creating the illusion of depth. Almost anything can be used, so long as it is appropriate and complementary to the scene. Rocks, boulders, tree roots, sand patterns, reflections, fallen leaves and wildflowers are popular foreground objects. Your foreground subject should help balance your composition and add a degree of scale and context.

The most common advice, in regards to foreground interest, is to get in close and go wide. By doing so you emphasise nearby objects, extend perspective and open up the view beyond. However, capturing great landscape images is rarely that simple. When using foreground interest, you need to carefully consider the camera's height and the relationship between foreground and background. If you're too low, foreground objects can appear too dominant and limit separation from the background. Equally, if you position your camera too high, you

can create too much empty, boring space. Attention to detail is crucial – it is certainly not as straightforward as finding the nearest boulder and plonking it in the foreground! A successful foreground should complement the background – while the foreground, middle distance and background need to work together. When identifying suitable objects, pay attention to shape, size, texture and orientation; angled objects can be effective to direct attention into the frame.

You will normally want everything from front to back to be in acceptable focus. Therefore, place your point of focus with care and select a small aperture of f/11 or f/16 to generate a sufficient depth-of-field.

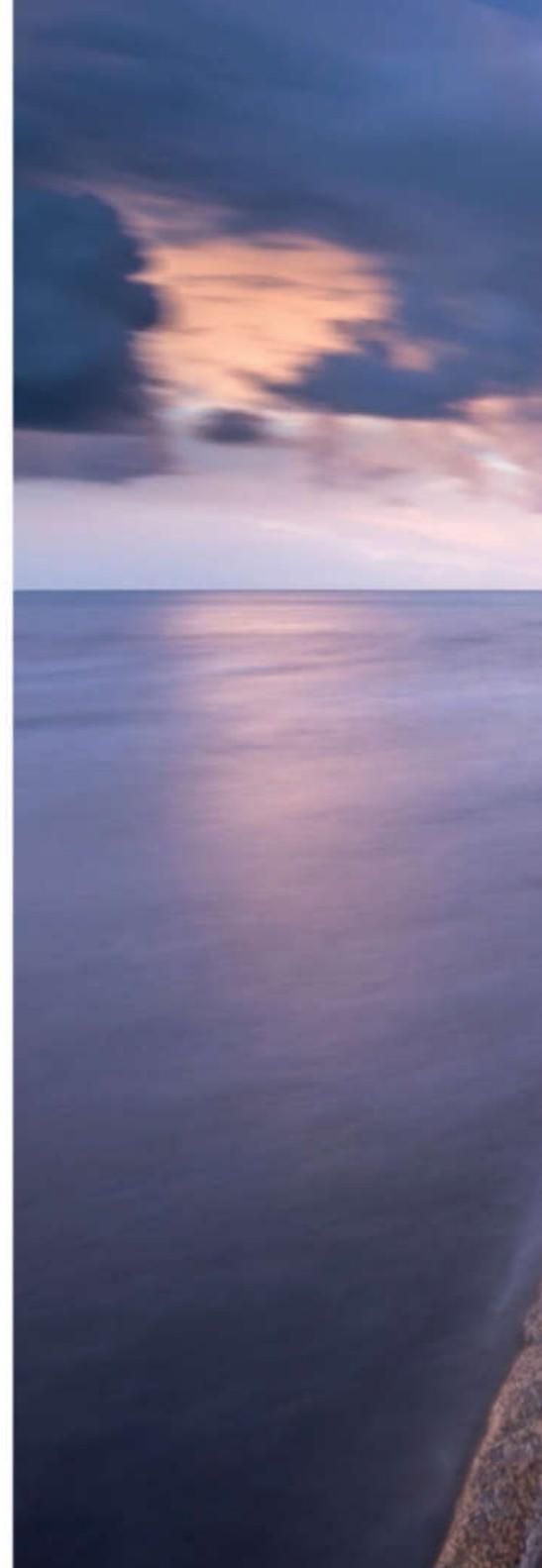
There is no doubting that, applied well, foreground interest will greatly improve your landscape compositions. However, don't fall into the trap of including foreground just because you think you should do so. Some scenes are stronger without any added foreground objects – for example, scenes already boasting lovely mirror-like reflections. Therefore, avoid including foreground for the sake of it – always be sure it genuinely benefits the composition first before releasing the shutter.



1 FIND A LOCATION Visiting a great location doesn't guarantee good images. This shot of Saint Michael's Mount in Cornwall, UK, is dull, boring and flat. With the Mount dominating, there's nothing to create context. There is no natural entry point to the composition, while the image lacks any perception of depth.



2 USE THE FOREGROUND By using a wider focal length, and using foreground interest, this shot has more impact and depth. However, the photo lacks balance; the foreground is too large and dominant. Rather than link the foreground and background, it is so imposing your eye stays transfixed on the foreground.



FOREGROUND INTEREST At the coast



SAND PATTERNS: A receding tide often reveals ripple patterns in the sand and tidal pools. A low shooting angle will help you emphasise the design, texture and contrast of sand patterns.



WATER MOTION: Generate your own foreground interest by shooting water motion. Capture waves crashing over rocks or dragging back over a pebbly foreshore using a slow-ish shutter speed.



WILDFLOWERS: Away from the beach, look for wildflowers that – depending on the time of year – often grow along coastal cliff-tops. They will add interest and a splash of colour, too.

3 FINAL COMPOSITION

The final composition is much improved as more sky has been included to create a balance with the foreground. The causeway not only makes an interesting, appropriate and colourful foreground, but it directs the eye into the shot, linking the composition together neatly, while also creating energy and depth.



FOREGROUND INTEREST *Rural landscapes*



● **CROPS:** In spring and summer, vibrant crops make ideal foreground subjects for rural views. Many strains will sway in the breeze, too, so it's possible to capture a little motion in your foreground.



● **HEATHER:** In late summer, many rural scenes are carpeted in flowering heather. The deep purples and pinks provide a wonderfully colourful and beautiful foreground in elevated, far-reaching views.



● **LEAVES:** During autumn, forest floors are carpeted in gold and orange leaves, which create great foreground interest in woodland landscapes, particularly among gnarled tree roots.

LEARN TO USE LEAD-IN LINES

ROSS HODDINOTT REVEALS HOW LEAD-IN LINES ARE EFFECTIVE AT GIVING YOUR IMAGES DEPTH AND DIRECTING THE VIEWER'S EYE THROUGH A COMPOSITION

THE LANDSCAPE IS full of lines and shapes – both naturally occurring and man-made, straight and curved – that your eye instinctively follows into an image. Pathways, roads, bridges, a jetty, stream or wall are a handful of examples. However, not all lead-in lines are quite so obvious. Some are more subtle, like a tree avenue, a row of objects, patterns in the sand or even waves breaking on the shore. Not only will a lead-in line help give your images the impression of depth, but they can also link the subject and foreground. By using a lead-in line, you are effectively able to control the way the viewer will read your photo.

A lead-in line should create a path for the eye to follow through the image space. Avoid lines cutting horizontally across the entire width of the image, as they will typically act like a barrier between the foreground and background – dissecting the image in two. Usually, it is most effective if your lead-in line starts at the bottom of the frame, guiding the eye upward and inward, from foreground to background, ideally leading to the main subject or a focal point. Strong compositions often include lines passing through them, be it straight, diagonal or curved. Diagonal lines

are particularly desirable and dynamic, though, when leading from the bottom left corner to the top right of the frame; the natural scanning pattern of the human eye. Including vertical lead-in lines enhances the feeling of height, especially if you are using the camera in portrait format.

Many popular lead-in line subjects, like roads, pathways and crops, boast parallel lines that appear to narrow and converge as they diminish in size the further away they get. These converging verticals greatly enhance depth. For the best effect, shoot down their length to create a vanishing point in the distance. You can exaggerate the effect further by using a wide-angle lens, as this will distort perspective – stretching the apparent distance between near and far. Camera height is another factor: lower viewpoints make the level of convergence even greater. That said, don't automatically opt for a low viewpoint as it can cause problems with the degree of separation between elements within your composition. There's no doubt that the right lines have the ability to add depth to your shots, so always look for them within the landscape and use them to enhance your compositions.



1 FIND YOUR LEAD-IN LINE You will find both natural and man-made lead-in lines within the landscape. This little jetty is an example of the objects you can look to include within your composition. Diagonal lines can work well, but in this instance having it lead from right to left doesn't provide a strong enough result.



2 CAREFULLY COMPOSE Diagonal lead-in lines typically work best when pointing from left to right. Therefore, I moved position to shoot the jetty from the opposite side. My angle is too acute, though, and rather than direct the eye into shot, the jetty simply leads the eye in one side and straight out the other.

LEAD-IN LINES *Coastal landscapes*



● ROCKY LEDGE: Many beaches have rocky ledges or 'fins' of rock leading out to sea. They are great foreground interest and a natural lead-in to shots – particularly with water washing around them.



● BEACH STREAM: Some beaches have streams snaking their way through sand or pebbles toward the sea. They create an ideal lead-in line and add motion and interest to wide-angle views.



● PIER: Piers and weather defences stretching out into the sea create an obvious lead-in line. Shoot along their length if possible, or just from one side, in order to emphasise their narrow structure.

LEAD-IN LINES *Rural landscapes*



● CROP LINES: In summer, the countryside is full of growing crops. You will often find tractor tracks leading through extensive fields, which provide obvious lead-in lines to rural views.



● FOOTPATH/WALKWAY: Paths, roads and tracks will direct the viewer's eye into your compositions, so include them whenever appropriate as they will add depth and interest to photographs.



● BARRIERS: Fences are other common objects that you can utilise as a compositional aid. Dry stonewalls are especially photogenic when bathed in golden sunlight or set against stormy skies.

3 FINAL COMPOSITION
I decide to try shooting down the length of the jetty. This allows me to emphasise the lines of the little structure and its length. Doing so really helps create the implied depth and interest I was after and connects the foreground with the hills behind. Switching to vertical format also improves the composition.



CREATIVE COMPOSITION

UNDERSTANDING THE RULES OF COMPOSITION WILL PROVE A GOOD STARTING POINT. HOWEVER, THERE ARE OTHER TRICKS AND TIPS TO HELP YOU WITH CREATIVE COMPOSITION

1) USING COLOUR WITHIN THE SCENE

Colour can be a significant ingredient when composing landscapes, so its influence shouldn't be underestimated. While we obviously can't control or alter the colours found within the landscape, we do have the ability to decide what we do and don't include within the frame.

Colours can be harmonious or conflicting; warm or cold; vibrant or muted. Colour is great at grabbing attention, while a photo's overall tone will often help determine its mood – so colour has an important visual and emotional effect too. For example, photographs taken during twilight will typically adopt a cool blue cast, which is considered tranquil, cold and calming.

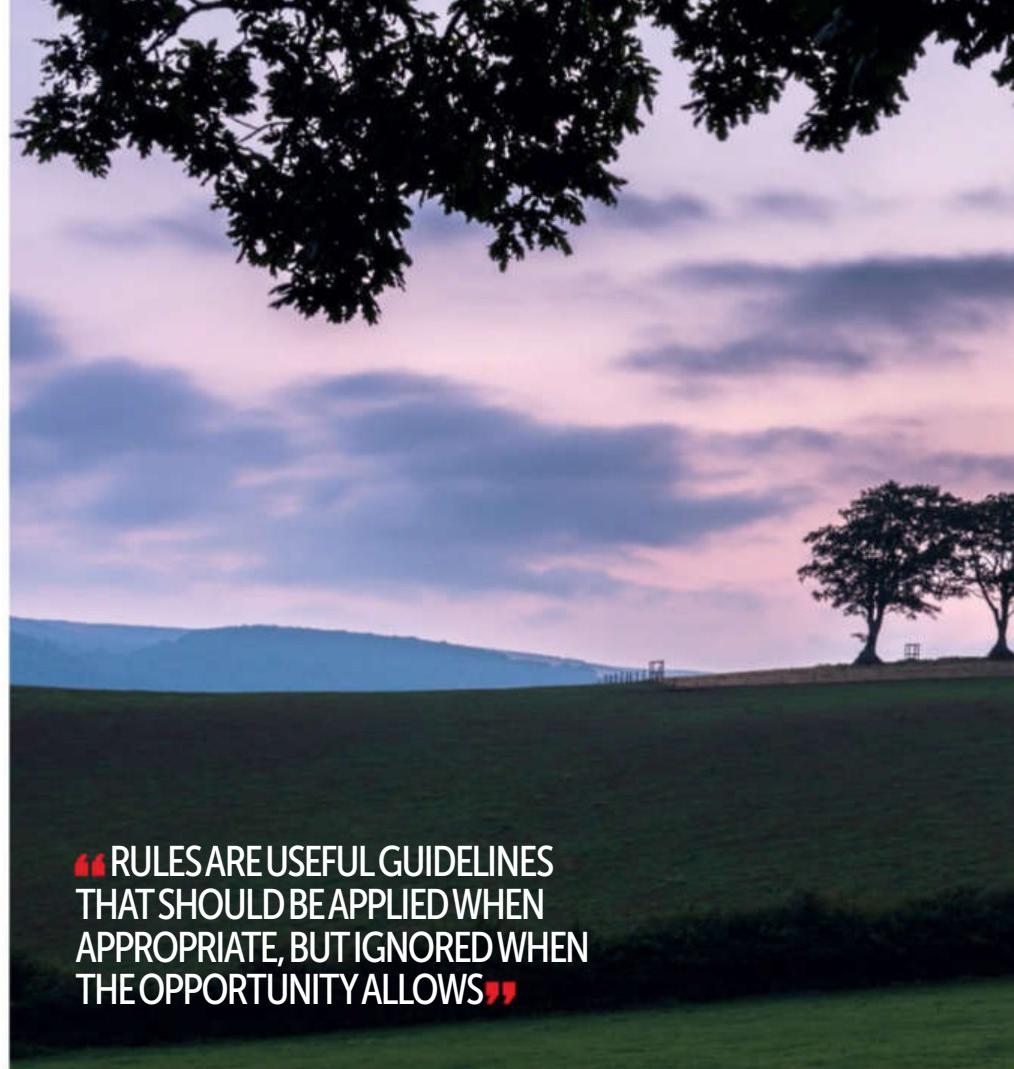
A little understanding of colour theory is useful as a photographer. Some colours stand out more than others and carry more visual weight. Red, yellow and orange are all 'advancing colours' that will grab attention more than others. Red has the ability to dominate a composition – for example, our eyes will be drawn to a single red poppy in a field of corn. In contrast, green, blue and purple are regarded as 'receding colours' that will normally drift away into the background. Once you understand this, you can use colour as a compositional tool to direct the eye to key focal points.

Colours within the landscape are typically at their most saturated during the golden hours of light – at either end of the day. A polarising filter will also help saturate colour. However, while colour will help give your compositions impact, the elements still need to be arranged in a visually pleasing way to create a strong overall composition.

2) USING REFLECTIONS

Whether it is the sea, a river or waterfall, or a still lake, landscape photographers are drawn to water. Reflections are particularly appealing and, compositionally, they give us lots of options. When shooting on the beach, tidal pools can provide good foreground interest. Mirror-like reflections are most striking when colour is evident – for example during a colourful sunrise or sunset. A low angle often accentuates reflections, so explore different heights in order to discover an impactful composition.

Large bodies of water, like lakes, dams and reservoirs, produce the most impressive and photogenic reflections. They are best visited on still, calm mornings when the water is like glass. Often, although not always, it is best to abandon the rule-of-thirds when



“RULES ARE USEFUL GUIDELINES THAT SHOULD BE APPLIED WHEN APPROPRIATE, BUT IGNORED WHEN THE OPPORTUNITY ALLOWS”



ROSS HODDINOTT

shooting reflections, and instead opt for a centred horizon – with an equal amount of subject as reflection. This will create an enhanced feeling of symmetry, producing visually stronger results than had you simply conformed to the rules. Often you will require no foreground at all – the reflections effectively become your foreground interest. However, a jetty, rowing boat, rocks or reeds may help add interest and scale. Reflections can be up to two stops darker than the scene, so you may need to attach a ND grad filter – or make adjustments in post processing – to create a balanced exposure.

3) NATURAL FRAMES

Another effective compositional trick is to find natural frames within the landscape to frame your view. A 'frame within a frame' is a great way of keeping the composition focused on the main subject – it is also an effective method of implying added depth to a scene. You can find all types of natural frames, for example branches, an archway, bridge, cave, rock formation or reeds. Not only will a natural frame help draw attention into the image, but it can add context to the scene and intrigue the viewer. Often a frame will help retain the viewer's eye for longer,

ROSSHODDINOTT
3

ROSSHODDINOTT



ADAM BURTON

as there is a barrier between the subject and the outside of the shot.

Using a frame can create bold, striking compositions. A frame doesn't need to go completely around all four edges – often a partial frame is all you require. For example, overhanging branches will stop your eye from drifting up and out of the top of your shot; while a rocky ledge in your foreground can create a frame for the scene beyond. A word of warning, though: while frames within a frame can prove very effective, they can also make a composition feel cluttered or cramped if applied poorly or inappropriately.

4) BREAKING THE RULES

An understanding of compositional rules is essential for communicating your ideas in a visually pleasing way. However, you shouldn't follow them slavishly. The rules are guidelines that should be applied when appropriate, but ignored when the opportunity allows.

The rule-of-thirds is the best-known and widely used compositional tool, but there are occasions when placing your subject or horizon centrally creates a stronger result. If you are confronted with a scene with little or no interest in the foreground or middle distance, but a dramatic sky, don't be afraid

to place the horizon at the bottom of the frame. Equally, if the sky is uninteresting, emphasise the foreground by including only a slither of sky, or none at all.

Less conventional crops can work well too. Don't feel restricted by your camera's aspect ratio – cropping is a key part of composition. Switching to a square or letter-box ratio during editing is a legitimate part of composition, so long as doing so strengthens the image. Experiment, play and compose your landscapes intuitively. Always trust your instincts and never allow the rules of composition to rule your compositions.



PERFECT STORM

PROFESSIONAL LANDSCAPE PHOTOGRAPHER HELEN DIXON DESCRIBES THE CONSIDERATIONS YOU SHOULD BEAR IN MIND WHEN CAPTURING ROUGH COASTAL SCENES

CAMERA: NIKON D800E / LENS: NIKKOR AF-S 70-200MM F/4G ED VR



IF YOU EVER doubted the immense power of the ocean, head to your nearest port town during the winter months. Low-pressure systems can create tempestuous winds and choppy seas that provide the potential for rugged atmospheric landscapes. Not all storm systems will generate big enough waves to impact the shoreline though, so keep a check on weather forecasts and BOM weather warnings to help you stay one step ahead.

Stormy images rely on high tide so you can capture breaking waves at their tallest – this is what gives stormy images their incredible impact. For this reason, your location and viewpoint will be governed by tidal position rather than the sun or time of day.

Winter light is generally bright enough to shoot throughout the day with a shutter speed of at least 1/250sec, which is normally fast enough to capture the full force of the wave as it smashes into the coast. A slower shutter will soften the impact and lose you detail in the waves as a consequence.



CAPTURE THE DRAMA OF A STORM

- **FAST SHUTTER SPEED** As the high tide coincided with sunrise, it was hard to keep the camera still so I had to use ISO 400 to maintain a minimum exposure of 1/250sec at f/8 to freeze the crashing waves. Later, as the sun got stronger, I dropped the ISO to 200 to benefit image quality.

- **RECEDING TIDE** Once the tide starts to recede, the scene quickly loses its impact. However, the warm afternoon light falling on the church creates potential for an image with a different appeal.

- **SLOW SHUTTER SPEED** Most of us love a milky water landscape now and again, but stormy scenes really call for fast exposures to intensify the impact of the storm. Lengthening the exposure to 1/5sec at f/13, I think, doesn't do this scene justice.

When capturing these conditions, you and your gear are exposed to all the elements. A cheap rain cover (1 & 2) helps to protect the camera and lens from sea spray and fitting a lens hood will help keep the front element clear – sea spray can damage your camera and it's difficult to clean off a lens at the best of times. A sturdy tripod is a must, as gale force winds often accompany storms, and a telephoto lens will keep you at a safe distance. Never put yourself in harm's way for the sake of an image.

Making the most of stormy conditions can be a challenge: there are strong winds, spray and varying light but a good place to start is to find a focal point, like the clock tower pictured here, which gives a sense of scale.



ON THE CREST OF A WAVE

I love the birds flying above the scene here, all of which have been displaced by the high seas. Although the light isn't the best, it has helped capture a dramatic view.

Exposure: 1/800sec at f/8 (ISO 200)

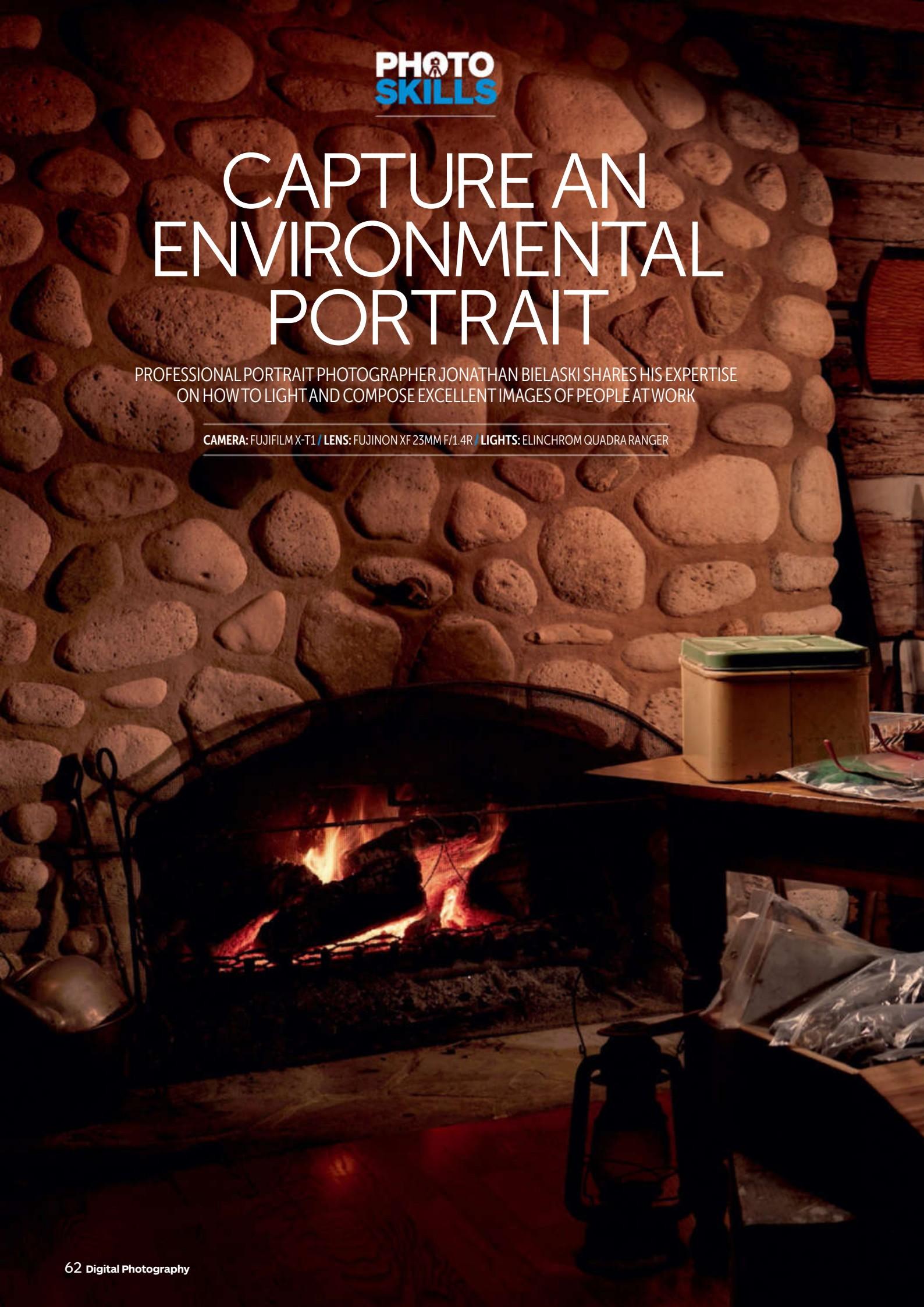




CAPTURE AN ENVIRONMENTAL PORTRAIT

PROFESSIONAL PORTRAIT PHOTOGRAPHER JONATHAN BIELASKI SHARES HIS EXPERTISE ON HOW TO LIGHT AND COMPOSE EXCELLENT IMAGES OF PEOPLE AT WORK

CAMERA: FUJIFILM X-T1 | **LENS:** FUJINON XF 23MM F/1.4R | **LIGHTS:** ELINCHROM QUADRA RANGER





PRO TIP

Prior to meeting your subject, take time to research their occupation or craft. This will help you build a rapport, give you common ground and make them feel at ease by discussing a familiar topic.

1 FELL IN LOVE with environmental portraits back when I was a product photographer. After shooting inanimate objects for so long I realised that there was more interest in the people behind the products than in the products themselves. I started out shooting custom motorcycle builders and it grew into a passion and my profession. Environmental portraiture is a more considered approach to recording someone's portrait; it does more than just show you what they look like – a good environmental portrait explains who that person is and what they do. It tells a story.

Environmental portraits are usually shot wider than a standard portrait would be, and include elements in their surroundings and props to show the viewer who that person is and what they do. In environmental portraiture the background is almost as important as the subject themselves.

You can create an environmental portrait of anyone – while photographers often gravitate towards grungy or gritty subjects such as blacksmiths, welders and farmers, office workers, scientists and designers can be just as interesting. The key is to find a background and make it a part of the shot – a desk and a lamp won't cut it – it needs to be considered, interesting and well composed.



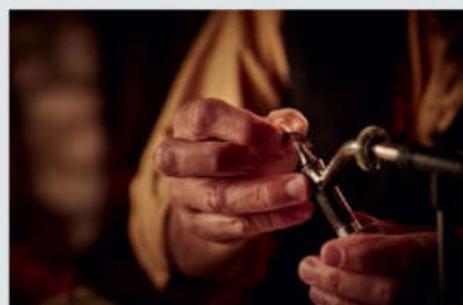
1 TALK TO YOUR SUBJECT This is the most important part of the process. Get to know your subject; they are the experts of their craft – ask what they do, how they do it, the tools they use and find out what sort of person they are. Explain the shoot and make them feel at ease. My subject here is a fly fisherman who builds his own flies.



4 ESTABLISH YOUR EXPOSURE I'm using studioflash, so first I establish an exposure based on the ambient light. Usually I'll underexpose by two or three stops – that's enough to stop lampshades and windows from blowing out, but it retains some shadow detail. Here, I underexpose by three stops to avoid overexposing the fire.

REMEMBER THE DETAILS

Alongside the portrait, I like to capture some close up details shots of the subject's tools of the trade. The main image shows a large scene and these little cut-aways allow the viewer to look at things in greater detail.



2 ARRANGE THE SET Identify the best background and props to use. I look to have a foreground, middle and background in my environmental portraits. We move the fisherman's table to include both the window and fire and position some tools and tackle boxes in front of the table. Everything in the frame should be considered.



5 BUILD THE LIGHTING Add the lights one by one – you can see the effect that each has and fine-tune it before moving on to the next. I have one flash fitted with a CTO gel outside to mimic sunset (1). An additional gridded flash illuminates the wall behind (2) and my subject and table are lit from camera left by a large Octabox (visible in step 2).



3 COMPOSE THE SCENE A focal length of around 23mm on APS-C (35mm on full-frame) is perfect to include your subject's surroundings. I'll often position the subject using the rule-of-thirds; having them off to one side gives the surroundings space to tell the story. Select a wide aperture that renders the background soft, but recognisable.



6 HELP THEM RELAX Only after my lighting is ready will I move my subject in. Try to make your subject forget they're having their photo taken – get out from behind the camera! Use a cable or wireless remote release, or mobile app if your camera supports it. Concentrate on the conversation and capturing a natural moment.

SUPER FLY GUY

The final result is a carefully considered image that shows the fisherman at work.

Exposure: 1/15sec at f/4.5 (ISO 200)



PRO TIP

Include props and objects that are relevant to the story, but hide or avoid objects which don't fit with the scene. When your viewer explores the scene everything should be coherent.

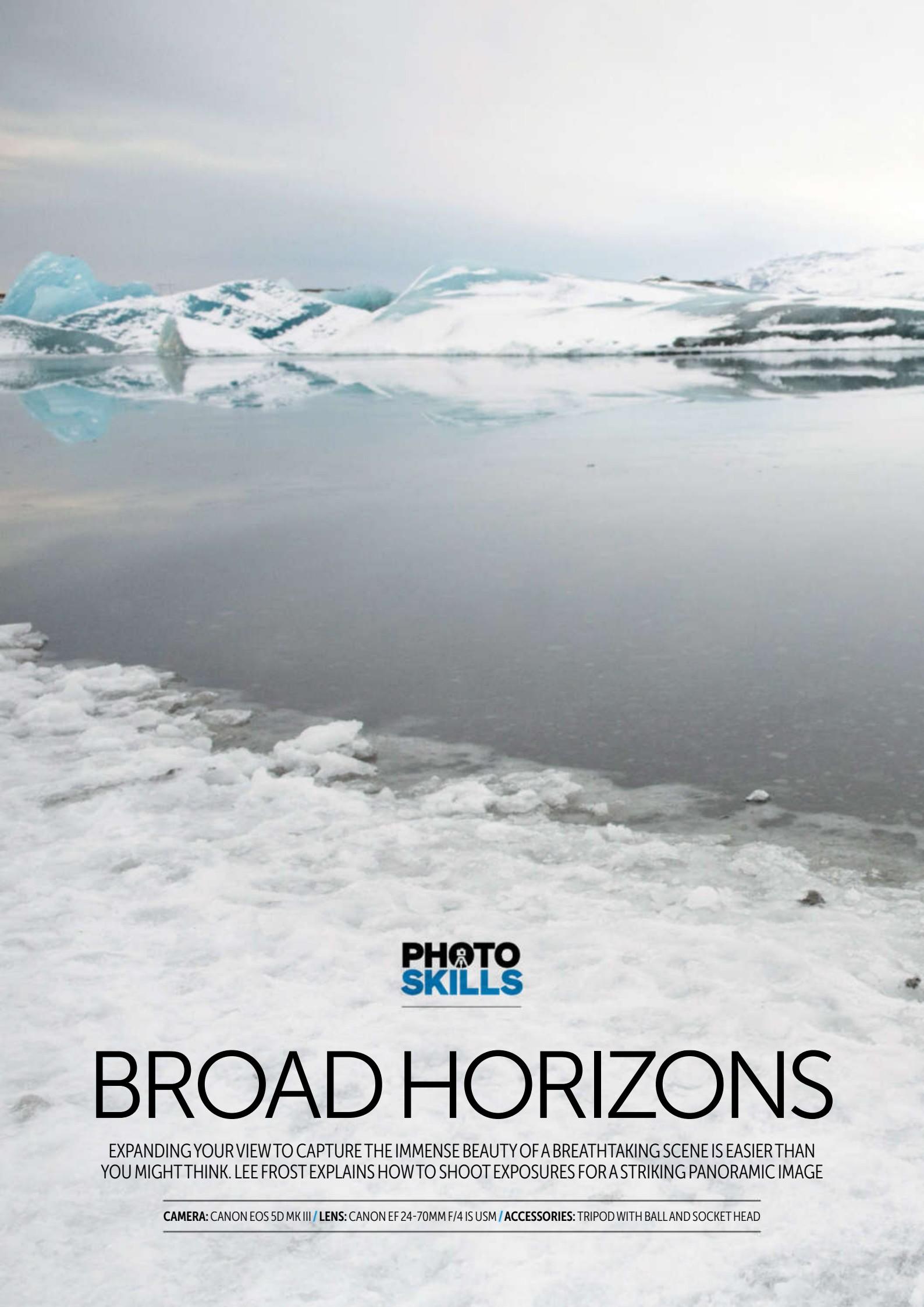


PHOTO
SKILLS

BROAD HORIZONS

EXPANDING YOUR VIEW TO CAPTURE THE IMMENSE BEAUTY OF A BREATHTAKING SCENE IS EASIER THAN YOU MIGHT THINK. LEE FROST EXPLAINS HOW TO SHOOT EXPOSURES FOR A STRIKING PANORAMIC IMAGE

CAMERA: CANON EOS 5D MK III / LENS: CANON EF 24-70MM F/4 IS USM / ACCESSORIES: TRIPOD WITH BALL AND SOCKET HEAD



PRO TIP

To avoid getting confused about what shots are part of which panoramic sequence, take a shot of your left hand with fingers pointing to the right at the start of the sequence and a picture of your right hand with fingers pointing to the left at the end of the sequence. The images between the two hands belong to the same sequence.



IN THE GOOD ol' days of film, I shot thousands of panoramas using specialist panoramic cameras, such as the Hasselblad XPan and Fuji GX617. In fact, one of the reasons why it took me so long to switch to digital capture was I knew that it would change the way I shot panoramas, quite possibly for the worst. Initially that was the case, but over the years it has become easier and quicker to shoot stunning digital panoramas thanks to big improvements in the software required to do the job.

The basic idea behind digital panoramic photography is that you shoot a sequence of individual images then use specialist software to 'stitch' them together into one elongated frame. There are various third-party applications available to do this, such as PTGui (www.ptgui.com) and Realviz Stitcher (www.realviz.com), but I favour Photomerge (photomerge.en.softonic.com), which is part of Adobe Photoshop. Early versions were poor; but from CS5 onwards it's brilliant.

Subject matter for panoramas is personal preference. I mainly shoot landscapes, but architecture, street scenes, interiors, gardens or any other subject where there's interest across a wide angle-of-view will be suitable.

The crucial thing is to make sure that there are interesting elements in the composition from start to finish. Scanning a scene from left to right with the camera will give you an idea if it's going to make an interesting panorama or not. It's possible to shoot panoramic images with an ultra wide-angle lens if the scene contains foreground interest but, equally, you can use a telezoom to crop in to a more distant part of the scene. I particularly like scenes that contain water



1 LEVEL THE TRIPOD Set up your tripod and make sure the head is level so that when you rotate the camera between shots it doesn't go out of square. I used the bullseye bubble on my Gitzo levelling base to ensure the tripod head was perfectly level.

as reflections add interest. Ranges of mountains and hills also works well.

The impact of a panoramic comes largely from the planning stage. The exposure and White Balance for each frame must be the same, otherwise the stitching software will struggle to do its job; use manual exposure mode and apply a fixed White Balance like Daylight. If you use AWB, you need to sync the colour temperature during Raw processing so it doesn't fluctuate depending on the frame. It's best to use a tripod, too, so that you keep the camera level between frames, otherwise you may need to crop the final stitch making it likely that you'll lose important elements. Avoid moving subjects too, such as drifting clouds, moving water, traffic and people in urban scenes, as they make seamless panoramas harder to achieve.



2 LEVEL THE CAMERA Use a hotshoe spirit level, or your camera's internal digital spirit level (if it has one) to ensure that the camera is straight. This two-stage levelling process should ensure the camera doesn't tilt as you move it across the scene.



6 START SHOOTING Re-position the camera to frame the far left of the scene, focus the lens manually and shoot the first frame. Move the camera slightly to the right and take the second exposure. Aim to overlap the frames by 30-40% each time. Repeat until you reach the end of the scene.



PANORAMIC BEAUTY

For vast, sweeping scenes, nothing equates to the impact that you can get from a well-exposed panoramic image.

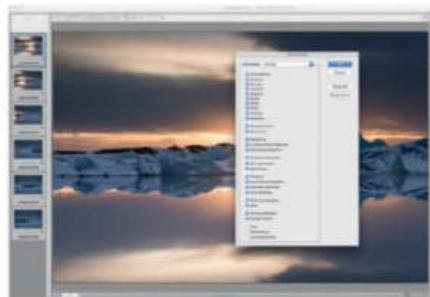
Exposure: 1/10sec at f/16 (ISO 100)



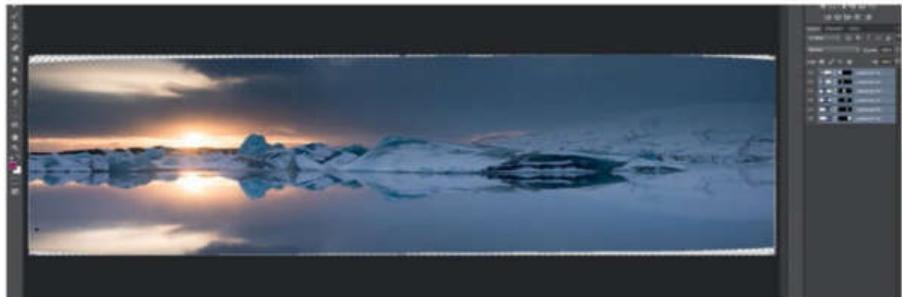
3 ATTACH FILTER If you need to use a neutral density grad to stop the sky from overexposing, position it on the lens. Never use a polariser for stitched images as polarisation varies across the sky and will create uneven bands of dark tones.

4 SWEEP THE SCENE You can shoot with the camera in portrait format to maximise image resolution, but I usually stick with landscape format as the files are more than big enough. Do a test run to ensure you don't crop anything important out of the image.

5 SET THE EXPOSURE Take a shot of an average part of the scene – not the lightest nor the darkest – check the image and histogram and if all looks okay, set that exposure in manual mode so you use the exact same exposure for each frame.



7 BATCH PROCESS THE FILES Once home, select all the images in the sequence and batch process the Raw files. Synchronise the files by selecting them all and pressing the *Synchronise* button in ACR – any changes you make to one will be made to all. When you're happy, save the images as TIFF files.



8 MERGE THE IMAGES Open Photoshop and go to *File>Automate>Photomerge*. Select the layout style you want to use: *Auto* works fine. Click on the *Use* tab, then *Browse* and choose the images you want to stitch. Click *OK* and let Photomerge work its magic. Flatten the layered image (*Layer>Flatten Image*) and crop.



SHOOT AT EXTREME ISO

HAVE YOU EVER USED YOUR DIGITAL CAMERA AT ITS MAXIMUM ISO RATING?
AS LEE FROST REVEALS, YOU CAN USE HIGH LEVELS OF NOISE TO YOUR ADVANTAGE

CAMERA: CANON EOS 5D MK III / LENS: CANON EF 17-40MM F/4L USM & EF 24-70MM F/2.8L USM



ONE OF THE most impressive improvements seen in DSLRs of late is the enormous ISO range on offer, and the amazing image quality that can be achieved at high ISO. In the past, setting your camera to an ISO over 800 and certainly 1600 was a dreadful idea as the images suffered from terrible noise, muddy shadows and flat colours. But all that has changed and the latest DSLRs can be used confidently at ISO 3200 or ISO 6400 without major noise issues. I know, I've done it many times. Even more astounding is the level to which the ISO range now extends. My Canon EOS 5D Mk III has an effective maximum ISO of 102400!

Despite the massive advances in high ISO image quality, few photographers regularly shoot at ISOs higher than 400. To be fair, most of the time you don't need to because light

levels are high enough to enable lower ISOs to be used, and if not, you can use a tripod. By avoiding the upper end of the ISO range, however, you're missing out on a new area of creative low-light photography that has only come into existence because the latest DSLRs are so capable. It's now possible to take successful shots in situations that a few years ago would have been out of bounds, such as handheld photography at night.

To put this into perspective, if the correct exposure at ISO 100 was two seconds at f/4, at ISO 25600 it would be 1/125sec. That's a whole different ball game. Although the payback for shooting at such a high ISO is images that exhibit obvious noise and grain, if you shoot the right kind of subject or scene it can actually enhance rather than spoil the image – pictorially, grain can look fantastic.



2 TAKE A TEST SHOT In this case the first shot suffers from camera shake because the shutter speed at ISO 3200 was too slow for safe handholding – just 1/15sec at f/2.8. Increasing the ISO to 25600 increases the shutter speed to 1/125sec, which gets rid of camera shake.



3 ADOPTING A STABLE STANCE This reduces the risk of shake when you're handholding in low light. Stand with your back straight, your feet slightly apart, tuck your elbows into your side and cup the lens with your left hand. Gently squeeze the shutter release rather than jabbing it.



4 RETAKE THE SHOT With a higher ISO and faster shutter speed the shot works fine – it's nice and sharp this time. It's noticeably grainy due to the high ISO noise, but not too bad considering that it was taken at ISO 25600! If you like grainy images then you'll be happy with this.



5 APPLY NOISE REDUCTION If you don't like grain you could enable High ISO Noise Reduction in your camera's menu to help minimise noise. A better option is to apply noise reduction during post-production. While it will reduce noise, it will also soften detail.



6 BOOST CONTRAST High ISO images often look flat, so during post-production, increase contrast by adjusting the Tone Curve or other controls available in your Raw processing software. If the shots are taken in artificial lighting, experiment with the White Balance controls, too.



7 CONVERT TO BLACK & WHITE Shots taken at extreme ISO often don't work in colour due to noise and poor colour rendition. Converting to black & white will solve this problem and produce stark, gritty images that look fantastic. I used the Contrast and Structure sliders in Silver Efex Pro.



1 SET THE ISO Adjust the ISO rating to what you think is a suitable level for the conditions you're in. The 'faster' your lens is, the lower the ISO, so if you're using a 50mm f/1.8 lens wide open, you can use a lower ISO than if you're using a 17-40mm f/4 zoom, say, and maintain a decent shutter speed.

TAKE YOUR ISO TO THE MAX

The very top ISO settings in your DSLR may be labelled H, H1, H2, H3 or something similar. They're not true ISOs: they're the highest numerical ISO that is under-exposed to effectively give an even higher ISO, then corrected in-camera. In my 5DmkIII, the highest numerical ISO is 25600, but it offers H1 (ISO 51200) and H2 (ISO 102400) settings. In reality, H1 is ISO 25600 underexposed by a stop then corrected and H2 is ISO 25600 underexposed by two stops then corrected. Image quality falls rapidly if these settings are used because when you underexpose a digital image you get increased noise and reduced shadow density. Are they worth using? Definitely. The results will be grainy, but they push the boundary of handheld photography to new limits, so it's worth experimenting with. This shot was taken at ISO 102400!





PHOTO
SKILLS

SHOOT FOR THE MOON

POINT YOUR CAMERA TOWARDS THE NIGHT SKY AND RECORD SHOTS WITH STUNNING LUNAR DETAIL. JORDAN BUTTERS SHOWS YOU HOW IT'S DONE...

CAMERA: CANON EOS 550D / LENS: SIGMA 50-500MM F/4-6.3 EX DG HSM

MAN HAS LONG been fascinated by the moon and the effect that is has on our planet, so it's only natural that we want to point our lenses skyward to capture it. Despite it being some distance away, around 240,000 miles in fact, there's a surprising amount of detail visible to the naked eye too – huge lunar plains, ecological formations and impact craters – and even more when viewed through a telezoom lens!

As well as a digital SLR, you will need a lens with substantial reach in order to fill the frame

with the moon. I've used Sigma's excellent 50-500mm f/4-6.3 EX DG HSM on an APS-C sensor, giving me an equivalent focal length of up to 800mm. This lens can be hired for a relatively low cost, or alternatively try a 1.4x or 2x teleconverter on a 70-200mm lens to obtain a not-too-dissimilar reach. Furthermore, if your camera has a high megapixel count (18-megapixels or higher), you can always crop in to the shot during post-processing and still come out with a reasonably high resolution image.



1 PLAN AHEAD Arrange your shoot to coincide with the right conditions. Use a lunar calendar, like moonconnection.com, to check which lunar phase the moon is in and keep an eye on the weather forecast for a clear night. I've opted to photograph the moon during a waxing gibbous lunar phase (in between full and quarter moon), as the shadow side of the moon adds depth and texture. You could always shoot on multiple nights to document the different phases.



NO APOLLO-GIES, I'M A LUNAR-TIC
Getting your focusing spot on is the secret to delivering tack-sharp lunar shots with plenty of detail. Give it a try!

Exposure: 1/100sec at f/10 (ISO100)



2 DIAL IN THE SETTINGS Set up your camera on a sturdy tripod and position your lens towards the moon – for optimum sharpness place the moon in the centre of the frame. As the moon is effectively reflecting sunlight, a long exposure isn't required. Select manual mode and choose a shutter speed between 1/100sec and 1/200sec and an aperture of around f/10 and ISO 100. The aim is to ensure that we retain detail in the moon's surface by underexposing it slightly.



3 FOCUS CAREFULLY Use LiveView and zoom into the LCD while manually focusing to ensure a sharp image. All the while the moon will be moving across the sky, so you may need to recompose the image before shooting. Attach a remote release, or use your camera's two-second self-timer mode to trigger the shutter – at long focal lengths camera shake can be a serious problem. You can also use your camera's Mirror Lock-Up feature, if it has one, to stop further vibrations.



4 PROCESSING With your images imported into Photoshop, Elements or Lightroom a little processing is needed to bring the best out of the image. Start by adding contrast using the Contrast slider or the Tone Curve while keeping an eye on the histogram to make sure that the highlights aren't clipped. Increase the Clarity to bring out the moon's texture further before sharpening to ensure crisp detail. I've also cropped in slightly to show the moon bigger in the frame.



FANCY A CHALLENGE? HERE ARE SOME ALTERNATIVE LUNAR IDEAS TO TRY



1) Seek out a silhouette

Find an interesting shape to place between yourself and the moon – birds on branches can work well, or if your reactions and timing are good enough you might even catch one in flight!



2) Include air traffic

Shoot a scene with passing air traffic included to show scale. This is only possible if you shoot early enough in the evening. Leave it too late and it'll be too dark to record any aeroplanes.



3) Superimpose the moon

You can easily superimpose your moon shot onto any night scene using the Lighten Blend Mode in Photoshop. Make sure that the exposure of the scene and moon line up, or it'll look fake.



4) Capture a time-lapse

Perfect for recording a lunar eclipse. Zoom out to leave room in the frame and use an intervalometer to trigger your camera every few minutes. The results can be compiled into one image.

IMAGES: ISTOCKPHOTO

FUN TRIPTYCH PORTRAIT

IT'S TIME TO GET CREATIVE! JORDAN BUTTERS SHOWS YOU HOW EASY IT IS TO CAPTURE YOUR SUBJECTS IN PORTIONS



EVER FEEL LIKE you're in bits and pieces? Here's a quirky and creative portrait technique that uses that feeling figuratively! By shooting three individual images of someone's head, torso and feet, before stitching them back together in a triptych, you can create a zany stylised portrait that can't fail to raise a smile.

The popularity of this technique can be credited, in part, to street photographer Adde Adesokan, whose series *Triptychs of Strangers* gained viral success online. Adde used this technique with fantastic and inspiring results and has put together a collection of triptych portraits on Flickr. Check out his take on the idea for yourself, here: <http://bit.do/DSLR-adde>.

The trick when shooting your own triptych portrait is not to aim for the three images to line up – quite the opposite in fact! Between shooting each segment move in closer, or step further away – you could even switch focal lengths for exaggeration. This creates a disjointed effect that adds to the overall appearance of the final image.

Kit-wise, it's best to keep it simple: natural lighting and your DSLR or mirrorless camera along with a fast prime lens are perfect for the job. I would recommend a 50mm or 85mm f/1.4 or f/1.8 lens, but your kit zoom is fine too. You might want to consider using a reflector if a bit of extra fill is needed, but your best bet is to shoot when the light is diffused by cloud, or in open shade.

TIPS FOR KIDS

This technique works great for capturing fun images of children and toddlers, too, but be prepared – the child probably won't be as interested in the idea as you are! Capturing the headshot is the trickiest part, particularly if they refuse to stand still! But once that's done the torso shot can be easily achieved by asking the parent to give the child something to hold and distract them. The feet shot can even be done with the parent holding the child in place from the side – shhh, no-one will ever know!



1 FIND A SUITABLE LOCATION As you're shooting a series of images that will sit next to one another in the final result, the lighting and conditions need to remain consistent. Therefore, look for an area of open shade where the light is soft and diffused. Pay attention to the background – it should be clear and free of distractions. Put distance between your subject and the backdrop to help blur it out of focus.



3 SHOOT THE HEADSHOT (above) Capture the headshots first as these are arguably the most important and will take the most time. Use a central composition in landscape orientation and look to fill about a third of the frame with your subject's head. Shoot a variety of different looks – from straight faces to smiles to goofy expressions. Also try shooting some closer and further away too – this way you have plenty of choice when it comes to putting together your triptych.

4 CAPTURE THE HANDS & FEET (right) Give your subject something to do with their hands – they could play with their phone or twiddle their thumbs, for example. An alternative idea is to let them hold something that represents their job, hobby or personality. When it comes to capturing their feet, don't shoot them straight-on – get down low and ask your subject to angle or lift their feet slightly to give them shape.

NOW EDIT YOUR OWN!

Turn over the page to find out how to put your triptych together...

Create your triptych

WITH YOUR IMAGES CAPTURED IT'S TIME TO PIECE TOGETHER YOUR TRIPTYCH PORTRAIT IN PHOTOSHOP



3 MATCH IMAGE RATIOS Next, select the *Crop tool* and, in the top menu bar, select *Ratio*. In the input boxes to the right, input the image ratio that you want to use – the first box is width, the second is height. I chose **2:1** for my images. Click on your image, line the crop up and press *Enter*. Crop all three images using this same ratio.



6 REVEAL ALL Repeat this process for the feet layer, holding *Shift* and dragging down until the top edge of the feet layer snaps with the bottom edge of the torso layer. Then, go to *Image>Reveal All* and all three layers will appear, lined up. You might choose to stop here, but I want to add a border between my three images...

7 ADD SPACING With the *Move tool* still selected, and your feet layer active, hold down the *Shift* key and tap the *Down arrow* key to create a gap, counting how many times you tapped – each tap is 5 pixels wide. Make your head layer active and repeat this, tapping the *Up arrow* key the same number of times. Go to *Image>Reveal All* again.

8 ADD A BORDER To add a border, select the *Crop tool* and then press the *Esc* key. In the top menu bar, press *Clear* and then click on your image. Use the corners to extend the canvas before pressing *Enter*. Then, go to *Layer>New Fill Layer>Solid Color* and press *OK*. Pick your border colour and then, in the Layers palette, drag this layer to the bottom.

PULL YOURSELF TOGETHER

Of course this editing method can be used to put together any kind of collage, not just portraits.



FUN TIP

If you've shot more than one triptych why not try swapping some of the sections between people for amusing results? If you shoot a series of triptych portraits you could even get the images printed as a flip book, allowing you to mix and match faces, hands and feet!

PRO TIP

USE A REFLECTOR

If a white fill card isn't strong enough, use a silver reflector to diffuse the shadows. Avoid a gold reflector as it may make the bottom half of the face warmer than the top.

**PHOTO
SKILLS**

CLAMSHELL LIGHTING

A SIMPLE SET-UP WITH STRIKING AND NUMEROUS RESULTS: CAROLINE SCHMIDT DEMONSTRATES ONE STUDIOFLASH SET-UP YOU'LL WANT IN YOUR ARSENAL

CAMERA: NIKON D800 / **LENS:** NIKKOR 50MM F/1.4G / **OTHER:** SILVER REFLECTOR AND EINCHROM STUDIOFLASH

CLAMSHELL LIGHTING is instantly identifiable by its controlled, defined shadows and glow that can be beautifully flattering and contour-defining. Commonly it's created using two lights: one above and one below, equal distance from the subject, with the photographer shooting in between. Although the lighting technique seems quite straightforward, there are many variations for different effects depending on your lighting combinations. You can use just about any studioflash modifiers but beauty dishes and softboxes or striplights are favourites, but with differing effects. A beauty dish offers crisper definition than a softbox's light, which wraps around the face. If you've only got one studioflash, such as in this tutorial, you can use a reflector or white fill card underneath to fill in the shadows on the lower half of the face, but the degree of fill won't be as much as it would with a second studioflash. The technique depends on the precise positioning of the light sources and balance of light. Have the lights too uneven in strength and you could end up giving your subject a five o'clock shadow; have them too strong or at the wrong angle and the lighting can be too flat. If you're using two lights, set the power of the top light stronger than the bottom to ensure the light is flattering and defining. As you're adjusting the light, watch out for shadows underneath the neck and nose and ensure the catchlights are attractive; ideally at the top and bottom of the eyes.

1) SETTINGS: Set your camera to its flash sync speed and dial in an aperture for sufficient depth-of-field – for this shoot I used f/11 - f/13 and a low ISO to maximise image quality.



2) LIGHTING SET-UP: I set up a softbox approximately 60cm away, facing my subject, Erin, slightly above eye level and angled down 45°. The angle of the top light is really important for bouncing the light off the angled reflector underneath and onto the subject's face. The reflector was positioned at chest height, supported by Erin. If you're using one studioflash and a reflector too, consider moving your top light closer to the subject and varying the distance of the reflector under the subject until you're happy with the level of fill.

COMMON PROBLEMS WITH CLAMSHELL LIGHTING



● FLAT LIGHTING: If the light looks too flat for your taste, raise the height of your top light to deepen the shadows. If that still doesn't work, move the reflector further away to reduce the fill or feather the light by changing its angle.



● DEEP SHADOWS: The subject-to-light distance are especially important with clamshell lighting. The best effects come from 60-90cm away. If the light is too far away, your reflector will lose its power and the light on the face will look unbalanced.



● LIGHT IS TOO CLOSE: By placing the studioflash less than 60cm away from Erin and at an acute angle, instead of 45°, the flash illuminates the top of her head rather than her face, creating dense shadows around the eyes and lower face.



FamilyAlbum

SisterAct

LOOKING FOR IDEAS AND INSPIRATION ON HOW BEST TO CAPTURE STUNNING IMAGES OF YOUR FAMILY? OUR REGULAR GUIDE PROVIDES ESSENTIAL EXPERT ADVICE TO HELP YOU PRODUCE THE ULTIMATE FAMILY PHOTO ALBUM. THIS ISSUE, BRETT HARKNESS REVEALS HIS SECRETS FOR WORKING WITH SIBLINGS OF SIMILAR AGES

AS EVERY PARENT with young children will tell you – each is unique. So when shooting siblings of a similar age, it's important to remember that when capturing their portrait. Take Naia and Lola, sisters with two years between them. Both not only look very different, but they also have very different personalities. That's not unusual. Although they're sisters, they're still independent beings with their own nature, habits and behaviour. Whether I'm shooting them together or separately, I think it's important always to remember that they're both individuals, as well as sisters.

Unlike some professional photographers (mainly Stateside), I'm not into the twee thing of dressing them both the same, or asking them to do similar things. I just let them get on and capture the magic in front of me. To do that well, as you'll discover, the secret is to enjoy yourself, interact with the subjects and above all, have fun.

When I first start shooting, the images I'm taking are almost secondary in importance to the relationship I'm building with the subjects. At the start, I'm trying to see how the sisters respond to the camera, how they react to me and how they interact with each other. I'll choose a suitable location where I can get both of them close together so they're more relaxed, then have some fun while taking the pictures.

With Lola and Naia, I sat them in a window bay and let them do their own thing, taking wider shots that include them both and closer crops of each one. The window is an ideal choice as it provided a soft light and I could have the girls look at me or gaze outside, as well as doing silly things like press their faces against the glass. In the first five or ten minutes, I'm working at building a bond, gaining their trust, getting them interested in what we are doing and making them realise that our shoot is going to be lots of fun.

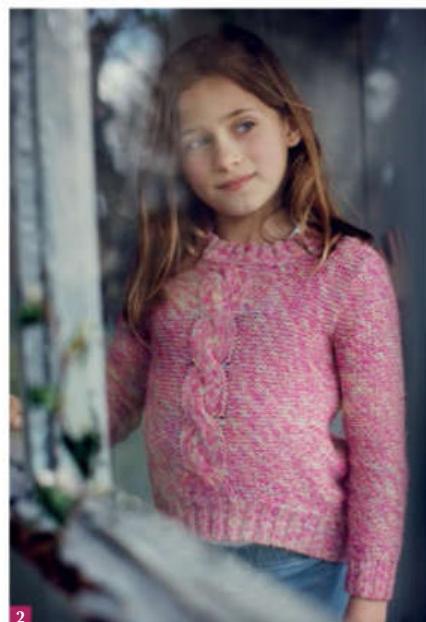
Once I've done this, I'm ready for the real shoot to begin, which normally involves heading outside. Shooting outdoors dramatically increases the potential for great images as you can manipulate the daylight or use flash while taking advantage of the variety of locations outside the home that are sure to keep the children interested. I'll generally look for suitable backgrounds, then start by taking pictures of the two children together, making sure that we're having fun the whole time.

Remember that even though they're together as two, we're shooting them individually as well, an aspect that we must remember throughout the shoot. While the parents are close by, I generally try to keep them some distance away as children always behave differently if parents are too near. On the shoot, I want them to react to me and not the parents as it's the best way to capture the types of pictures that the parents have never been able to.

The sisters may only have a couple of years between them (six and eight), but the difference in photography terms is massive.



1



2



3



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1&4) Areas of open shade like huts are great for containing kids within soft light. 2) Being older, Naia took direction well, letting me be more proactive than reactive. 3) The results you get hinge on the experience you give the kids, so make sure you have fun.

Lola is still a 'baby' as such and still enjoys doing baby things and being silly, so I play on that and also on her natural cheekiness and wit. Naia is only a couple of years older but acts very differently – she wants to be more like a model and you can see she's been practising her poses a little, so you want to show her looking a little older, but you also want to capture her how her parents want to see her still – as their little baby.

With younger children like Lola, you quickly pick up if they're an old six or a young six and you play on this. There's no point asking an 'old six' to stick their tongue out and pull silly faces – I once asked one to and was told that was just stupid! Luckily, Lola was incredibly responsive to my silly suggestions, which really helps me do my job.

As well as temperament, you should look for physical characteristics that you can use. In Lola's case it's her red hair, which always makes for amazing images – it's easier to shoot subjects with red hair as it seems to work with every colour of background.

The focal length of the lens you use can

make a major difference, too: a longer lens like a 70-200mm will flatten features and is a good choice if the subject has a rounder face. I'll generally stick to the 50mm, which I class as an environmental portrait lens, as it includes the subject and their surroundings.

The great thing about kids this age is that they look great no matter where you place them, so don't be overly concerned if you're struggling for locations. You can place a child on a doormat three feet inside their front door and take nice pictures. Start by the front door, then look for backgrounds outside of the home – we were very lucky here in that the family home and garden offer incredible opportunities for great backdrops, but almost everywhere has potential. While weathered paintwork is a favourite with many lifestyle photographers, I love concrete



Brett's kit bag

Canon EOS-1DS Mk III
Canon EF 50mm f/1.2L
Canon EF 70-200mm f/2.8L
Lastolite TriGrip sunfire/soft silver
Calumet Genesis Flash with softbox
Pocket Wizard Plus III triggers
Elinchrom Ranger RX with softbox
Lexar 16GB 300x CF cards

– its texture and how light falls on it.

At their seaside home, we've various options from the sheltered shade of the blue garden building to white walls and the wonderful garden with its nooks and crannies – all offering great potential.

The easiest way to keep the kids' attention is to be a kid yourself. Liking kids definitely helps! You can't stand over young children like Lola and Naia, so you've got to get to their level, sit or lie on the floor and be prepared to get dirty. Make stupid noises, play on their mentality and figure out psychologically where they're at and work with it. If you lose them, put the camera down and skim stones, have a tea party with the teddies or whatever you need to do until they're ready to be involved again.

Lola's attention span is less, so you have to work with her faster and I felt that I needed to keep talking to her while taking pictures to maintain her interest. With Naia, you could say nothing and she'd just look at you perfectly for hours – that comes from not just their different personalities but also the age difference.

Parents always like pictures that show their kids as young as possible. Parents like taking pictures that show their kids being stupid and funny and just being them. For me, the beauty in a portrait where a child is looking straight at the camera without a smile is something to behold. It's often something that shocks the parent because they weren't expecting it – it's an image that shows a parent how the child will be when they grow up. I generally don't try to force the expressions; I'd rather let them be as natural as possible. When I want something, I'll ask for it, so if I want them smiling or not for a particular shot, I'll ask, but generally I don't interfere in this respect.



2



3

1) Use differential focus for more engaging and interesting compositions. 2&4) Don't restrict yourself to always looking through the viewfinder, set your camera to autofocus and shoot from the hip. 3) Look for the little details to shoot too that show the connection between the siblings.

I'll generally shoot using daylight but I'll always have a couple of flashguns or a portable studioflash kit with me just in case. I'll shoot using ambient light as the main source, with a Lastolite silver-white/gold-white reflector to hand to bounce in some light when needed. If the sky's really cool, I'll look to use flash as I want to make the most of the backdrop for added drama.

The key thing with children this age is that the shoot has to be fun. If you think the kids are losing interest, get them to hold hands and have a little race with you. Then when they turn around and run back, be sure the sun's behind them so that you can take pictures and not waste the moment. Ultimately it's not about the photo shoot – it's about the experience. We're never thanked for a great photo shoot, we get thanked for giving the kids a great day out. The quote that summed up the shoot was from Lola, who when told the pictures were being used in a magazine, said: "What is it for? A magazine about having fun?"

www.brettharknessphotography.com

Q&A: Photograph kids

What advice do you give for those trying to shoot kids for the first time?

If you can't have fun then just forget it. Using flash and cool kit is great and can produce some brilliant images but you have got to start off simple. Start with a fixed lens so that you need to physically get in to the kids' faces to get the images rather than shoot from a distance. Keep it real, keep it simple.

What clothes should they wear?

Pick clothes that suit the surroundings. Here, in this rural surrounding, with the weather being mild to cold, woolly garments were ideal, with the bright colours and woven textures working a treat. Once we've finished one of the sessions, I'll usually get them to change outfits so that there's some variety to the shots. Don't dress them too smartly, if unsure go for bright colours and above all make sure they're comfortable in what they're wearing.

Are there any backgrounds to avoid?

Almost all are suitable. The one background I try to avoid is a mottled backdrop created by light passing through trees as it confuses the viewer's eye. Keep your background in the same light as your subject and you'll find it easier to work with.



*"The key thing
with children this
age is that the
shoot has to be fun"*

Cyclist

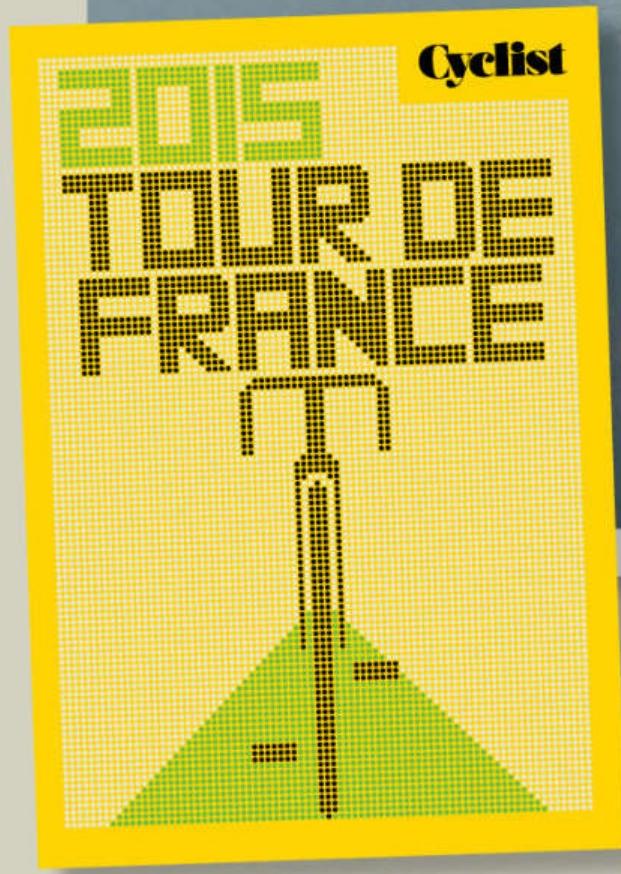
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NIKON D5500

A NEW, LIGHTWEIGHT AND COMPACT ENTRY-LEVEL DIGITAL SLR WITH ATEMPTING SPECIFICATION AND SOME NEATTRICKS UP ITS SLEEVE *Page 90*



Plus

GEAR NEWS: The latest product and gear news, hot off the press *Page 88*

NIKON D7200: Jordan Butters puts Nikon's new flagship APS-C DSLR through its paces *Page 92*

FUJIFILM X100T: Does this third-generation compact live up to the hype? *Page 94*

MINI-TESTS: The Lencarta Smartflash 2 and Photo Commander 12 software *Page 95*

SAMYANG 24MM F/1.4: Pin sharp, full-frame, fast aperture wide-angle lens *Page 96*

WESTCOTT APOLLO ORB: A deep umbrella octabox that fits any light, even flashguns *Page 97*

BIG SHOT TRIPODS: Benro C3570F versus Giotto's Silk Road YTL 8213 *Page 98*

BUDGET FLASHGUNS: We test ten of the best flashguns priced well under \$500 *Page 100*

New Nikon 1J5



NIKON HAS ADDED to its line-up of Nikon 1 mirrorless cameras with the Nikon 1J5, and the specification on offer certainly looks impressive! The J5 is the first Nikon 1 model to feature a backlit CX-format sensor that can capture 20.8-megapixel stills and 4K-resolution video, as well as Full HD 1080p/60p and HD 720p/120p formats. You can even shoot and compile smooth time-lapse videos in-camera thanks to its powerful EXPEED 5A processor. An expansive ISO range (160-12800) is available and it boasts 171 AF points and speedy 20fps shooting with continuous AF. The J5 boasts NFC and Wi-Fi, allowing you to stay connected and share your creations. On sale now, the Nikon J5 costs \$499 body-only, \$650 with 10-30mm PD Zoom lens or \$840 with 10-30mm and 30-110mm lenses. www.nikon.com.au

Flagship Pentax announced

THE PENTAX K-SERIES has a new flagship model – the Pentax K-3 II. It boasts a 24.35-megapixel APS-C CMOS sensor and Pentax's Shake Reduction (SR) system, allowing for up to 4.5 stops of shake reduction.

There's also a new Pixel Shift Resolution System, which shifts the sensor to capture four images of the same scene, before stitching them together for a higher resolution image. The K-3 II also offers a switchable AA filter, a 27-point AF system with 25 cross-type sensors and up to 8.3fps shooting rate.

Body-only, the K-3 II costs \$1,349, or you can choose a lens and body bundle for increased savings. www.pentax.com.au



More 4K models arrive from Canon

RECENTLY WE hinted at the upcoming release of a small Canon 4K camera. Shortly after going to press the rumour was confirmed with the release of not only the aforementioned model, but another 4K camera too: the EOS C300 Mk II.

The smaller model is called the XC10 and is capable of 4K/Full HD 4:2:2 video and 12-megapixel stills. There's a 10x zoom lens, optical image stabilisation, ND filter and Wi-Fi control. Its grip rotates too, making it easy to shoot at jaunty angles.

The XC10 is tentatively priced at AU\$3499 while its bigger brother, the EOS C300 Mk II, will set you back roughly US\$16,000. www.canon.com.au



Weather-resistant wide-angle from Fuji

FUJIFILM X-SERIES shooters are spoilt when it comes to quality optics, and it just seems to keep getting better. New to the line-up is the XF 16mm f/1.4R WR. Offering an equivalent 24mm focal length in 35mm format, the new lens boasts a fast f/1.4 maximum aperture, allowing for pleasing bokeh and low-light shooting. There are 13 elements in 11 groups, with two aspherical elements and two ED (extra low-dispersion) elements. As with all WR lenses, it's weather- and dust-resistant and works down to -10°C.

We're looking forward to giving this a try – the new XF 16mm f/1.4R WR is available now, priced at \$1200. www.fujifilm.com.au



ADOBE UPDATES

Adobe has released Lightroom CC, LR6 and Camera Raw 9. For the first time Lightroom is divided into two versions – one standalone and one for CC subscribers. In reality, the two are virtually the same, with the CC version supporting mobile integration. All three softwares now offer merge to HDR and panorama stitching functions – previously only possible inside Photoshop – as well as improved performance. Lightroom users can also enjoy a new Filter Brush tool – enabling editing of gradient filters, and Face Detection, for sorting your friends' mugshots with ease! www.adobe.com



LENSSES WITH OLED

Zeiss has unveiled two new lenses for Sony FE cameras, with a difference. The Zeiss Batis 25mm f/2 and 85mm f/1.8 primes both sport an OLED digital readout on the lens barrel, which provides photographers with the focal distance and a depth-of-field scale. The new lenses are priced at \$1900 for the 25mm f/2 and \$1800 for the 85mm f/1.8, which isn't bad considering Zeiss' usual high standards. www.zeiss.com



VSCO FREE

If you've always pined for the retro-inspired crushed blacks, hipster grains and faded colours of the VSCO Film Lightroom preset packs, but not enough to dip into your wallet for the USD\$119 per pack to purchase them, then this is for you. Visual Supply Co has released VSCO Film 00, a free starter pack that contains two of VSCO's most popular film emulations – Kodak Gold 100 and Kodak TRI-X. Head to vscoco/film/00/lightroom to grab yours!



D4s UPDATED

Lucky enough to own a Nikon D4s? Well a new firmware update has just made it even better! Nikon's latest software fix adds unlimited burst rate in shutter-priority and manual modes and removes the exposure time limit when using the Time function, previously set at 30 minutes. There's also support for the Speedlight SB-500 flashgun and improvements to WB consistency and AF point displays. To update, visit the Services & Support page at: www.nikon.com.au





Flagship DX Nikon launched

NEW ENTHUSIAST-FOCUSED DSLR OFFERS AN IMPRESSIVE SPECIFICATION

NIKON HAS UNVEILED its new flagship DX-format digital SLR, the Nikon D7200. Offering a high level of specification, impressive image quality, great video capabilities and speedy connectivity, the new model has inherited a whole host of features from Nikon's FX-format models.

For starters, the D7200 utilises an advanced Multi-CAM 3500 II 51-point autofocus system, derived from Nikon's professional bodies. This claims excellent low-light AF performance, capable of focusing accurately down to -3EV. There is also a wide ISO range (ISO 100-25600) to help further when light is very low. At the heart of the new D7200 is a 24.2-megapixel DX-format sensor, powered by the EXPEED 4 image processor, allowing for up to 6fps shooting in continuous burst. There's built-in Wi-Fi and, a first for a Nikon camera, Near Field Communication, giving you plenty of options for connecting, sharing and remote camera control. Video fans are well catered for, too, with Full HD 1080p30 recording (or 1080p60 in 1.3x crop mode), HDMI and audio outputs and a Flat Picture Control mode. There's no touchscreen or vari-angle monitor, but the 3.2in 1,229,000-dot LCD is crisp and as good as we've come to expect from Nikon. The new model is on sale now. For a full review, turn to page 92. www.nikon.com.au



SONY LENS FRENZY

Things have been busy in the Sony labs with not one, but four new full-frame lenses and two full-frame teleconverters being announced in one go! The models include a new Zeiss Distagon T* FE 35mm f/1.4 wide angle prime (\$2100), FE 90mm f/2.8

Macro OSS mid-telephoto macro lens (\$1500), FE 24-250mm f/3.5-6.3 OSS telezoom (\$1300) and FE 28mm f/2 wide-angle prime (\$800), and are suited to Sony's E-mount full-frame line up of mirrorless models – that being the A7, A7R, A7S and A7 Mk II. The two new teleconverters – the SEL057FEC fisheye converter (\$400) and SEL075UWC ultra-wide converter (\$330) fit the new 28mm wide-angle prime, and convert the focal length to 16mm or 21mm, respectively.

www.sony.com.au



Cashback offers

It's the time of year again when the big guns try to tempt you into a new camera body or lens with all sorts of tantalising discounts. Here's what's on offer:

● **Nikon:** Nikon's current cashback offer is mainly focused camera bodies, with \$100 cashback available on the purchase of a new Nikon D5500 – the very same model reviewed in this issue on page 90. Check out that review for more info, and for cashback details visit: www.nikonzashback.com.au

● **Canon:** For a limited time only (and subject to availability, of course), you can claim a bonus Electronic Viewfinder or EF lens Mount Adapter with every EOS M3 purchase – or if you're more interested in printing your photos, any purchase of a Canon PIXMA MG6660 printer from an authorised Canon Australia Retailer comes with bonus free glossy paper. www.canon.com.au/en-AU/Personal/Products/Special-Offers

CANON PITCH 4K

While we've no news of this reaching our shores yet, Canon China has announced the launch of a new 'small' 4K-capable model boasting a 1in CMOS sensor and 10x optical zoom f/2.8-5.6 fixed lens. Images were up on Twitter within minutes of the announcement, featuring the new model and, rather bizarrely, action star Jackie Chan endorsing it! The compact camera looks to be Canon's take on the action/drone camera market and features a rotating grip – a feature that could work very well indeed! Fingers crossed we get to see this in Australia soon!

NEW LUMIX LENSES

Panasonic has announced two new lenses for its Micro Four-Thirds cameras. First up is the new Lumix G 30mm f/2.8 Macro OIS, offering users an equivalent 60mm close-up optic, ideal for photographing subjects in minute detail. It features Mega Optical Image Stabilisation and 240fps drive autofocus. Also new is a 42.5mm f/1.7 OIS portrait prime lens. It promises to offer brilliant, smooth bokeh with its equivalent 85mm focal length. We've no news on pricing as yet, but both new lenses are expected from May. www.panasonic.com.au



NIKON D5500

Nikon's new baby is tiny and light, with a touchscreen LCD, but is it big on performance and handling? We find out if it's small, but mighty!

Test: RICHARD HOPKINS

SPECIFICATIONS

Guide Price: \$999 (body only) / Street Price: \$899
Image sensor: APS-C CMOS (23.5x15.6mm)
Resolution: 24.2-megapixels
Maximum image resolution: 6000x4000 pixels
AF points: 39 (including nine cross-type sensors)
ISO range: 100-25600
Shutter speeds: 1/4000sec-30 seconds & Bulb
Continuous frame rate: 5fps
Built-in flash: Yes, GN12 (ISO100, m)
LCD monitor: 3.2in (1,037,000-dots)
Storage: SD (SDHC/SDXC)
Size: 124x97x70mm
Weight: 470g (including battery and card)

JUDGING BY THE number of times Nikon has revamped its D5000-series DSLRs, you could be forgiven for thinking that maybe there was something wrong with them, as this is the fourth incarnation in only five years. But actually what Nikon has been doing is staying ahead of the game by making an already good camera just that little bit better each time. The Nikon D5500 sits in the hotly contested upper-entry-level class, where the technology is fast-moving and strong competition comes from all directions – not only from arch-rival Canon with its hot new 750D and 760D combo, but also a whole raft of mirrorless models from most of the big electronics brands.

The D5500 plays things safe by keeping the best features of the previous D5300. These include the same class-leading sensor and EXPEED 4 processor, without an anti-aliasing filter to make the most of the 24.2-megapixel resolution; ISO range still runs from ISO 100-25,600; the excellent rear LCD is the same 3.2in articulating screen with 1,037,000-dots; the autofocus system retains 39 AF points; and it can still rattle along at a nifty five frames-per-second.

The biggest change is the LCD monitor, which is now touch-sensitive, bringing the D5500 up to date with rivals. Other modifications include better battery life (extended by 36%), a new 'flat' Picture Control that appeals to video users, and the on-board GPS has been dropped from the spec sheet, but Wi-Fi remains so it's easy to hook up to a smartphone.

Some other higher-end features are still missing at this price level, such as an in-body focus motor, so the D5500 cannot use



WELL DEVELOPED

The Nikon D5500 builds upon advancements made in the previous D5000-series models, resulting in a compact DSLR capable of incredible image quality.

older lenses with screw-drive AF. It's AF-S lenses only, but in practice that's unlikely to be a problem. The pop-up flash has no commander mode to control remote flash guns, there is only one main control dial, and no top-plate LCD to confirm and adjust settings. These features are all available in the D7000-series cameras.

Anyone familiar with the previous D5300 (don't ask about the D5400, Nikon appear to have skipped that model number) will have noticed small tweaks to the control layout. What's less obvious from illustrations is the reduction in size and weight. Nothing too radical, and the Nikon D5000-series has always been quite trim, but when all these small changes add up, they do amount to a significant improvement in handling. And now with that touchscreen added too, this is one sweet machine to use.

In fact, when you first pick up the D5500, its petite size (124mm long) and light weight (470g inc battery) are the first things you notice, and it calls for a few comparisons. Mirrorless cameras are supposed to be substantially smaller and lighter than DSLRs, but one of the nicest handling CSCs is the Fujifilm X-T1, which is actually longer and only a feather lighter than the D5500. Looking back to film cameras that we often remember as far less bloated than DSLRs, the lightest 35mm film SLR ever made was the hugely popular Pentax ME Super, and that was 8mm longer than the D5500 and exactly the same weight with a roll of film. In today's market, compared to many small, fiddly CSCs on one hand, and some quite

hefty DSLRs on the other, the nimble Nikon D5500 strikes a very good balance. Much of the weight saving comes from extensive use of plastics in the construction, including a composite chassis, though it has to be said that the build quality is very high and the black finish is immaculate (the coloured-finish options tend to look more plasticky). The dials, buttons, switches and levers are all smooth and well weighted – good to the touch. It feels solid and robust, including the articulating screen that tilts up, down, forwards for the inevitable selfies, or closes inwards to protect the screen.

The touchscreen plays a big part in the improved handling, and it's far from a gimmick (if you were thinking along those lines). In effect, it basically opens up a large new area of real estate on the back, filled with virtual buttons to settings that might otherwise be harder to locate or frustratingly hidden in the menus. It's very sensitive and getting the measure of that is easy, though you need to be accurate. Those with chunkier fingers might prefer navigating with the more conventional multi-way controller, but they'd be missing out.

On performance, the Nikon D5500 does everything expected from a mid-range DSLR. That is to say; it will handle pretty much anything you can throw at it and come up smiling, with very few limitations. That's where we are with technology at the moment – with even quite modestly priced cameras sporting a standard of specification that was state of the art just a few years ago.

Exposure metering is handled by a 2,016-



pixel RGB sensor coupled to sophisticated Matrix-pattern algorithms that are not easily foaxed. Or there's good old centre-weighted metering available, and a spot option too. The autofocus system has 39 points, with nine of those the more sensitive and accurate cross-type. You can select a single AF point, or clusters of nine or 21, or have the camera select them automatically. Then there's Nikon's popular 3D-tracking of moving subjects, too.

There are three shooting rates: single shot, up to three frames-per-second, or up to five. The top shutter speed is 1/4000sec rather than the 1/8000sec of higher spec models, and flash sync is 1/200sec. There's LiveView of course, and full HD 1080p/60 video. A multitude of scene modes and special effects are included, such as toy camera, miniature effect, selective colour and HDR (JPEG only) – in fact, pretty much everything except auto-stitch panorama.

Then there's the sensor, made by Sony and probably the best APS-C format sensor currently available with 24.2-megapixels, sans AA filter. Running from ISO 100-25600, it's the same sensor as in the previous Nikon D5300, and it's also found in the current D3300 and D7200 cameras, too. With that many pixels and no AA filter to take the edge off sharpness, the D5500 is capable of stunning detail, as the test pictures show. The downside of no AA filter is moiré interference appearing in small patterns, such as some fabrics, or maybe roof tiles in a cityscape when regular lines in the subject clash with the neat lines of pixels on the sensor. This creates coloured swirls and artificial patterns that can be very distracting and hard to remove, but we had no problems in the review period. This is probably because high pixel counts reduce the need for an AA filter and 24-megapixels is about as high as it gets on APS-C.

TOUCHSCREEN LCD MONITOR

The Nikon D5500's rear LCD is the key to its new-found appeal. In addition to the usual stuff: 1,037,000-dot resolution and articulating every which way, including forward-facing for selfies, it's touch-sensitive. Tapping the icon bottom-right opens the door for easy access to all those settings you know are hidden somewhere in the menus, but struggle to find! In such a small camera, it effectively multiplies the space available for additional controls and transforms the whole user experience.



CLOSEST RIVALS

● **CANON EOS 750D & 760D:** Brand new, so attracting lots of attention, they're hardly big cameras, but larger than the D5500. The new 24-megapixel APS-C sensor has phase-detect AF pixels for improved performance in LiveView, plus a sophisticated 7,560-pixel metering sensor. Updated 19-point normal AF; 5fps frame rate; 3in articulating touchscreen LCD. The D5500 is \$999 body-only but for an extra \$50, the EOS 760D has a top-plate LCD, and an extra control dial on the back, instead of buttons.

● **PENTAX K-5 II:** Not so new, with only 16 million pixels, and superceded by the Pentax K-1 IIs (same camera, without AA filter) but the K-5 II is certainly a camera worthy of its heritage. Excellent performance at semi-pro level, and solidly put together with weather-proof seals at every corner. \$999 body only.

● **CSC RIVALS:** Some compete on price, but are not direct rivals in what they do and the way they go about it. In terms of AF performance, they can't yet match the DSLR's phase-detect AF when it comes to tracking moving subjects.

VERDICT

BEST BUY

Regardless of its price or modest position in the Nikon range, not only does the D5500 deliver class-leading image quality, it does so with ease. The small size and light weight are seductive. The touchscreen LCD simply side-steps multi-function buttons and regular visits to the menus and makes the D5500 better, easier, faster, and just really good to use, and you get so much more out of the whole shooting experience.

Handling	18/20
Ease of use	18/20
Features	18/20
Performance	18/20
Value	18/20

Overall **90/100**

NIKON D7200

Nikon's new flagship APS-C digital SLR pulls no punches, packing advanced features that you'd usually only see in pro-level models

Test: JORDAN BUTTERS

SPECIFICATIONS

Guide Price: \$1500 (body only) / **Street Price:** \$1300
Image sensor: APS-C CMOS (23.5x15.6mm)
Resolution: 24.2-megapixels
Maximum image resolution: 6000x4000 pixels
AF points: 51 (including 15 cross-type sensors)
ISO range: 100-25600
Shutter speeds: 1/8000sec-30 seconds & Bulb
Continuous frame rate: 6fps
Built-in flash: Yes, GN12 (ISO 100, m)
LCD monitor: 3.2in (1,229,000-dots)
Storage: Dual SD (SDHC/SDXC)
Size: 135.5x106.5x76mm
Weight: 765g (inc battery and card)

NIkon has had an incredibly busy time of late when it comes to releasing new camera models, with an updated variant of an existing DSLR being unveiled what feels like every few months. Its flagship APS-C D7000 range is next up for a revamp, and the bar is already set pretty high. First launched in 2010, the original D7000 was incredibly popular and was in high demand with enthusiasts. Its successor, the D7100, followed late in 2013, bringing a raft of improvements and earning Nikon loyal DX-format shooters in the process. Announced in March, the new D7200 is more evolution than revolution, but with the specification of the D7100 already impressive, are the changes enough to tempt users into the new model rather than bag a bargain with the outgoing?

Although classed as a 'consumer' model, the D7200 is largely built upon technology that you'd expect to find in 'professional' FX-format Nikon bodies. A quick scan down the spec list and, minus the sensor size, you'd be forgiven for thinking the D7200 anything less than a pro body – EXPEED 4 processor, 24.2-megapixel resolution, Multi-CAM 3500 II 51-point AF system, 6fps continuous frame advance, dual card slots – the list goes on. Many of these features can also be found in the outgoing D7100, but there are some notable improvements.

With the new EXPEED 4 processor, as found in the Nikon D4s, there comes an increased buffer and continuous burst speed, up from five to six frames-per-second. Nikon are claiming that the buffer can handle up to an impressive 27 Raw files, or 100 JPEGs, before things start to slow down. When tested, I found these



HIGHLY SPECIFIED

The new Nikon D7200 is an evolution of the existing D7100 and offers pro-level features and a high-resolution APS-C sensor.

– all the lock does for me is slow the process down, which isn't a good thing in a clinch.

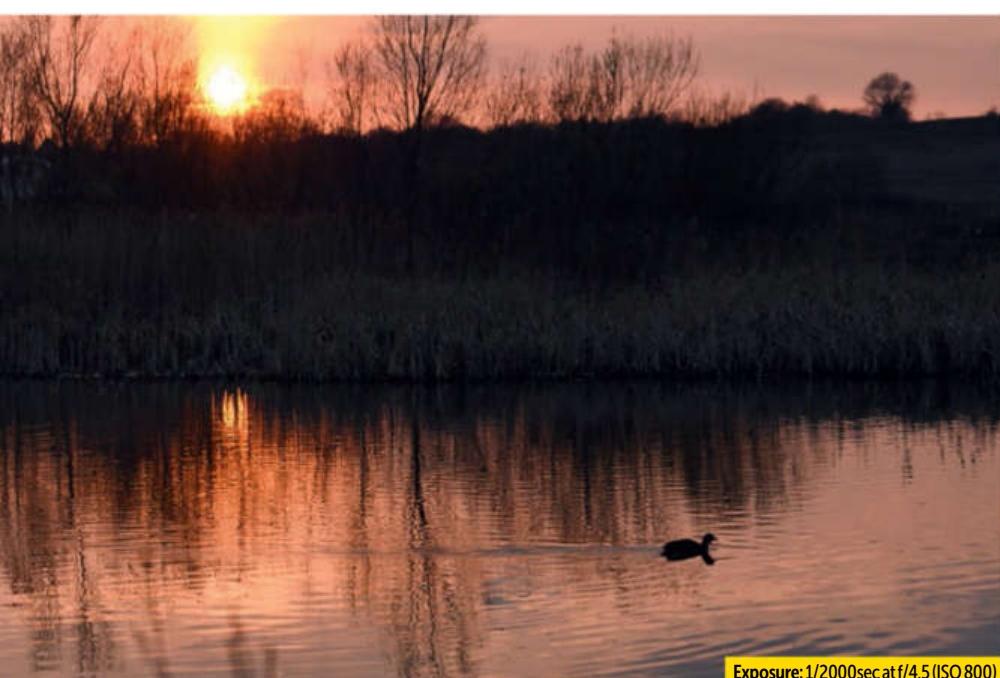
To the left of the generous 3.2in LCD screen sit buttons that, when used in conjunction with the dual control wheels, allow for fast adjustment of White Balance, image quality and ISO. Mere minutes after picking up the D7200 the controls feel well-placed and intuitive.

As mentioned, the rear LCD screen is a good size, occupying much of the back of the D7200. Its 1,229,000-dot resolution is the same as found on the D7100, and why change it? The images are crisp and bright, with impeccable colour reproduction.

Disappointingly, the screen is not touch-sensitive, nor does it tilt or angle. The former I can live without but the latter does come in use when shooting from high or low angles, or snapping selfies – that was a joke of course, and not something that I condone!

Around the front of the camera, the AF selection button is where you'd expect to find it on pro-level Nikons, and makes for quick adjustments without taking your eye away from the viewfinder. There's also a Bracket button that lets you shoot up to nine exposures at up to three-stop intervals.

Delve into the menu system and everything is well laid out and easy to adjust. The D7200 features Nikon's Picture Control 2.0, which boasts the usual Standard/Neutral/Vivid/Monochrome/Portrait/Landscape settings, alongside a new Flat setting – this low-contrast mode is ideal for video shooters or photographers who want an unadulterated file for precise processing.



The D7200 includes Wi-Fi and – a first for a Nikon DSLR – Near Field Communication. This means that tech-savvy photographers can not only download images straight to their mobiles and tablets at the press of a button, but those with compatible NFC devices can simply touch them to the D7200 to initiate the transfers. There's also wireless control, too, using the free Nikon Wireless Utility app. Sadly, the features on offer are rather limited, only allowing for AF point selection and shutter release as opposed to full exposure control.

Shooting with the D7200 is as rewarding an experience as you'd expect it to be. The autofocus system is the star of the show, reacting quickly and accurately, working surprisingly well even when presented with fast-moving, low-contrast objects and in tricky lighting – down to -3EV Nikon claims. The burst rate and more-than-generous buffer lets you rattle off fast successions of

images, putting you in good stead to capture fleeting moments. This is a great camera for action or sports photography.

Image quality is second-to-none too. Raw files are detailed and crisp with great shadow detail and good colour, while the in-camera JPEG processing is sensitive to colour and contrast. White Balance readings remained consistent throughout my time with the D7200, handling everything from studio portraits to landscape sunsets without a hiccup. Noise is well controlled, even at high ISO, with files perfectly usable at ISO 1600 and higher! The D7200 offers Hi1 and Hi2 expanded ISO (equivalent ISO 102400), but these are only available in Monochrome JPEG mode, so are a last resort really. There's also a 1.3x crop mode (on top of the DX sensor's existing 1.5x crop), which speeds up the continuous frame advance rate to 7fps and lifts the D7200's 1080p 30fps HD video ceiling to 60fps.

MOVIE MAKING

Nikon is looking to appeal to enthusiast movie makers with the D7200's improved video features. There's Full HD 1080p video at 24p, 25p and 30p in DX mode, with 50p and 60p progressive available in 1.3x crop mode. There's also a clean HDMI output, allowing for an additional monitor or external recording, and 3.5mm audio output and mic input. The D7200's built-in stereo microphone is adjustable for sensitivity and offers wind noise reduction too. Auto ISO control makes for smooth transitions in changing light while a Zebra mode helps identify blown highlights, while Flat Picture Control allows greater colour and contrast control in post-production.



CLOSEST RIVALS

● **CANON EOS 7D MK II:** Canon's flagship APS-C model, and a heck of a package. It's slightly lower in resolution at 20.2-megapixels, but this is still plenty. This is a true sports and action DSLR, with blistering 10fps shooting and an advanced 65-point AF system, as well as Full HD 60fps video. Priced at \$2260, body only.

● **CANON EOS 70D:** Also 20.2-megapixels, the EOS 70D is a couple of years old, so can be bought for around \$1300, body only. The D7200's AF system is more advanced, as the EOS 70D only packs 19 AF points, but it does offer 7fps shooting and Wi-Fi.

● **NIKON D610:** There is but a few hundred dollars filling the gap between Nikon's APS-C and full-frame models at present. The original D600 was plagued with sensor dirt problems, all of which have been resolved in the D610. Resolution is a similar 24.3-megapixels and it also offers 6fps shooting, although the 39-point AF system isn't as advanced as the D7200's. The D610 can be had for around \$1600 now, but set some extra aside for FX-format lenses.

VERDICT

Whilst not a drastic improvement over the D7100, the D7200 is a class-leading APS-C DSLR. Inspired by its professional siblings, the 51-point AF system shines and image quality is impressive. Wi-Fi and NFC are welcome additions, and the clear 100% coverage viewfinder and bright LCD are a joy. At just under a grand, it's not far off the price of Nikon's full-frame offerings, but the D7200 benefits from cheaper lenses and the increased reach of the DX-format sensor.

Handling	19/20
Ease of use	18/20
Features	19/20
Performance	19/20
Value	18/20

Overall **93/100**

FUJIFILM X100T

Is Fujifilm's third-generation premium compact a worthy complement to your digital SLR? Let's find out...

Test: JORDAN BUTTERS

SPECIFICATION

Guide Price:	\$1596 / Street Price:	\$1250
Sensor:	APS-CX-Trans CMOS II (23.6 mm x 15.8 mm)	
Resolution:	16.3-megapixels	
Maximum image resolution:	4896x3264 pixels	
AF points:	49 (nine phase detection)	
ISO range:	100-51200	
Shutterspeeds:	1/4000sec (1/32000sec electronic) - 30 seconds & Bulb	
Continuous frame rate:	6fps	
Storage:	SD (SDHC/SDXC)	
Size:	127x74x52 mm	
Weight:	440g (including battery & card)	
Website:	www.fujifilm.com.au	

THE FUJIFILM X100 is a cult classic. In the four years since its launch, the X100 has amassed a strong following of shooters looking for a carry-anywhere compact with image quality equivalent to their DSLR. The X100S followed in 2013, further improving on the principles of a big sensor in a small body. I rarely leave home without my X100S – it fits in a large pocket, feels weightless slung over my shoulder and its 35mm-equivalent lens is incredible. It has even replaced my DSLR for travel – less weight, less space, but the same image quality that I'm used to.

The new X100T is more of an evolution than a revolution of the X100S. Externally, there are subtle aesthetic differences – the scroll wheel on the back has given way to a less frustrating four-way control, and it now sports a larger, higher resolution LCD screen and a dedicated DRIVE button. The camera's layout has been simplified with less labels and provides huge scope for customisation. There's a new Advanced Hybrid viewfinder that combines an electronic and optical viewfinder into one – a feature that I loved on the Fujifilm X-T1.



VERDICT

The X100T improves on the X100S's flaws and throws some new features into the mix. It's a powerful camera; but it's not cheap at around \$1500. Can the cost be justified? As an X100S user, it's not quite enough to sway me, but if I owned the original X100 or was new to the Fujifilm market, then the X100T would be my first choice.

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★★★
Overall	★★★★★

The X100T solves this problem and allows you to see the real world at the same time as your exposure, along with all the relevant information. It even rotates when you switch orientation! The X100T's addition of Wi-Fi is one that I would have scoffed at a few years ago, but with the advent of social image sharing it's one that I miss most from my existing Fuji. There's now even an app that allows you to control and trigger the camera from your phone or tablet.





LENARTA SMARTFLASH 2

200W studioflash / S-fit mount / cooling fan / rapid recycle time

Test: RICHARD HOPKINS

Price: \$220

Accessory fitting: S-fit mount

Remote control: Via USB port or sync socket

Adjustment range: Five stops

Maximum power: 200W

Size: 30cm long

Weight: 1.56kg

Website: www.lencarta.com

GETTING STARTED IN studioflash is rarely cheaper or easier than with this Lencarta Smartflash 2, costing only \$220 – half the price of a decent flashgun. If you want to start right with studio lighting, this is the way to go with plenty of power, fast recycling, a cooling fan and bright modelling lamp so you can see what the light is doing and learn fast.

It's small, with the main body only 18.5cm long, and lighter than most at 1.7kg. Build quality is good and there's nothing cheap about the control dials and switches. Rated at 200W, that's ample power for home portraits and it checked

out at f/16 with a 90cm softbox at 1.0m, ISO 100 – generous for 200W. By reducing the flash to its minimum power, it also allows you to shoot at f/2.8. That's a range of 4.8 stops. Power adjustment is easy, too, using the digital readout, or by counting the clicks on the dial at 1/8-stop increments. The modelling lamp is adjusted separately with its own dial, is as bright as more expensive heads and can be dimmed by 2.7 stops. However, the lamp dims momentarily during recycling, which is supposed to be helpful but is actually a bit distracting.

Light output is very consistent shot-to-shot, and colour control is perfectly acceptable too, warming by a hardly noticeable 500K in our tests at minimum power. Recycle time is rapid, timed at under one second on full power and much faster at lower outputs, with a beep to confirm.

The mount is the popular S-fit, opening the door to a vast range of affordable light modifiers to grow into, from softboxes and umbrellas to beauty dishes and snoots. Other features include a standard sync socket, optical slave and umbrella slot, plus the option to plug in a Wavesync radio trigger with remote power control (as illustrated).

VERDICT

This is quality gear that's easy to use, with a good spec and high performance for very little money. Buy two and it's still better value than most entry-level two-head kits. Highly recommended.

Overall



Photo Commander 12

Photo management / editing and presentation / Raw converter

Test: JORDAN BUTTERS

Price: \$70

System: Windows XP, Vista, 7 & 8

Other: 30-day free trial available

Contact: www.ashampoo.com

WITH THE AMOUNT of images that digital photographers take nowadays it's one thing staying on top of editing and sharing your best ones, but it's a completely different matter trying to keep images organised. Good photo management software is the key, and Ashampoo Photo Commander 12 is the new kid on the block.

It faces stiff competition, with Google Picasa, Adobe Lightroom, Capture One and, for the time being, Apple Aperture commanding the lion's share of the market. However, Photo Commander 12 has a huge list of features on its side: it supports Raw files, .psd files, video and 3D images, there's scanner integration as well as EXIF data reading, a host of editing and presentation options, and a built-in image organiser and cataloguing system. The full version costs just \$70, too – it sounds too good to be true! Sadly, it is.

While Photo Commander does claim to do a lot of things, using it is not an enjoyable experience. The interface is clunky and confusing to navigate at first, and I don't have as much confidence in the Raw conversion capabilities of the software either, as it was slow to load in large Raw files and doesn't offer the lens corrections of other softwares. There are plenty of editing effects on hand – everything from colour and lighting optimisation through to batch processing and creative effects such as tilt-shift and adding text. There's a huge range of presentation effects, too – calendars, greetings cards, collages, slideshows, panoramas and social uploading. I actually quite liked some of the one-click solution effects available and some of the presentation options are really quick and easy to apply, but many of the editing effects are on the cheesy side, and lack the control that many users will expect.

At \$70, it's cheaper than Adobe Lightroom 5 (\$99), but also nowhere near as pleasant to navigate – we'd rather pay a little more for a better user experience.

VERDICT

Photo Commander 12 tries to do everything, and in doing so doesn't really excel at anything. It's hampered by an overcrowded user interface and clunky controls and while some editing capabilities are useful, many won't be of interest.

Overall





SAMYANG 24MM F/1.4 ED AS UMC

Samyang's full-frame fast aperture wide-angle lens looks to offer value for money and pin-sharp results

Test: JORDAN BUTTERS

SPECIFICATIONS

Guide price: \$1000 (Canon/Sony/Pentax/Samsung/Micro Four-Thirds); \$1050 (Nikon)
Street price: \$750
Lens construction: 13 elements in 12 groups
Filter thread: 77mm
Minimum focus: 25cm
Angle of view: 84° (61.1° APS-C)
Diaphragm: Eight blades
Size: 83x97mm
Weight: 680g
Supplied accessories: Petal lens hood, soft case & caps
Contact: www.syopt.com/en

OVER THE PAST few years Korean manufacturer Samyang has gained good traction in the lens market. By offering high-quality optics and good build quality at great prices, they have gone from a well-kept industry secret to mainstream player. While on the hunt for an ultra wide-angle prime for landscape shooting, I thought it a good chance to give Samyang's 24mm f/1.4 ED AS UMC a try to see how it stood up to existing competitor lenses.

The Samyang 24mm f/1.4 offers fantastic value for money, coming in at around £550 in comparison to £1,250 for Canon's 24mm f/1.4L, £1,470 for Nikon's 24mm f/1.4G and £800 for Sigma's new 24mm f/1.4 Art lens. There is a caveat: Samyang's 24mm lens is manual focus only, however depending on



your chosen discipline this might not be as much of an issue as you first think.

Initial impressions are that this is a big lens. This is typical of fast, ultra wide-angle primes and offers reassurances that it's built to withstand some knocks. The lens is supplied with a petal-shaped hood and front and rear caps and uses the common 77mm filter size. This is a full-frame lens and, as such, is nicely balanced when fitted to a bigger camera – on a smaller APS-C model the ensemble can feel front-heavy. Being a manual focus lens, the majority of the barrel is taken up by a grippy focusing ring, marked with a distance scale and also a handy depth-of-field reference too. The aperture ring extends from f/1.4 to f/22 in single-stop clicked increments (a de-clicked version is also available for video shooters). The lens is available in two types: an AE-compatible Nikon version and a full manual version for Canon, Sony, Pentax, Samsung and Micro Four-Thirds users. Only the Nikon lens benefits from full aperture control and full EXIF information.

Performance-wise, I was pleasantly surprised. Shooting at mid apertures on a Nikon D750, the lens delivered bitingly sharp results across the frame with minimal chromatic aberration, no significant vignetting and a surprisingly small amount of distortion. When used wide open at f/1.4 there is significant softening and quite severe vignetting present – however, this is greatly reduced when the lens is stopped down to f/2 and all but disappears from f/2.8 onward. As with all ultra wide-angle lenses, there was some flaring but nothing major. The Samyang is constructed of 13 elements in 12 groups with four low dispersion and two aspherical elements, with eight curved aperture blades creating nicely rounded, smooth bokeh with good contrast.

Above: The lens handles flare well, resolves good colour and contrast and plenty of fine detail, providing you nail the focus!

The lack of autofocus might be an issue for some photographers, in particular those not using it for landscapes. I barely noticed the lack of autofocus when shooting sceneries as I was using a tripod and LiveView. If you were shooting a moving subject, or handheld, however, nailing perfect focus could be tricky, especially when shooting wide open. The Nikon models do have an AF-confirmation beep, but other versions of the lens do not.

All things considered, the Samyang 24mm f/1.4 ED AS UMC is a very tempting proposition, especially for landscape photographers that regularly shoot using a tripod. At a third of the price of Canon and Nikon models it might even tempt those used to the comforts of autofocus. However, with the newly-announced Sigma 24mm f/1.4 Art lens costing only a few hundred dollars more and boasting autofocus, I'll reserve my order until I've had a chance to give the Sigma a fair try too.

VERDICT

A full-frame, ultra wide-angle prime lens for \$1000 or less sounds too good to be true. Optically, and in terms of build quality, the Samyang 24mm f/1.4 is incredible – if you can live without autofocus, this lens is a cracker. However, you might want to wait for Sigma's latest offering to become available before taking the plunge.

Build quality	★★★★
Features	★★★
Performance	★★★★
Value	★★★★
Overall	★★★★

WESTCOTT APOLLO ORB OCTABOX

A deep umbrella octabox that fits any light, even flashguns – the 110cm Apollo Orb looks good for portraits...

Test: JORDAN BUTTERS

SPECIFICATION

Price: US\$150, inc. stand and bracket

Dimensions: 1100x1100x635mm

Weight: 450g

Includes: Apollo modifier, removable diffusion panel

Contact: www.fjwestcott.com

IN THE PAST if you chose to use a flashgun your choice of lighting modifiers were somewhat limited. This changed when the 'strobist' movement gathered pace a few years ago. Now all kinds of modifiers are available for flashguns, from umbrellas and softboxes to translucent discs, globes and adaptors that allow you to use larger modifiers that were originally designed for studio lights. So what makes the Westcott Apollo Orb stand out from the plethora of other options? Well, for a start, the Apollo Orb is the first octagonal softbox that can be used without an adaptor ring. It's built upon a fibreglass umbrella frame and will therefore fit any light, providing there is an umbrella holder present.

Assembling the Orb couldn't be easier – it opens out like an umbrella, meaning that you can go from packed away to up and running within minutes without fiddling with eyeball-threatening tension rods. The front diffusion panel attaches with velcro, and the edge on the softbox itself is generously wide, allowing you to mount the diffusion panel right at the front of the box, or recessed an inch or so back for greater control.

Where the Orb differs to most traditional softboxes is that the flash is mounted in the centre of the softbox, as opposed to through the back, thanks to a zippered access slot in the base. This means that you can point the flash backwards or forwards: pointing the flashgun towards the back creates a very soft light that wraps around your subject, whereas pointing it forward creates a harder light with more specularity. Because the flash is mounted centrally, it also means that you can use the Orb with larger studio heads (providing they have an umbrella attachment), or with several flashguns at once with the addition of a multi-bracket. The downside of the flash mounting within the softbox is that power



must either be adjusted remotely, or by reaching up inside the softbox or peeling back the diffusion panel.

There's also less scope for tilting the Orb to light from above when using a normal light stand, although you can use a tilting bracket or boom arm to achieve this.

The quality of light produced by the Westcott Orb is impressive to say the least – this might just be my new favourite lighting modifier. The relatively flat back and considerable depth creates a bright, yet beautifully soft light that falls off gradually. When used close to your subject the light wraps around the face with pleasing transitions from highlight to shadow. There's next to no colour cast and, when firing the flash backwards, no tricky hotspots to contend with. Westcott also offer an optional 40° grid for the Orb for greater control of fall-off.

So, what are the downsides? Foremost, you'll need the space to use the Orb – its width and depth make it tricky to set up in confined spaces and under low ceilings. I'd also have liked the option of adding a layer of inner diffusion – as available on the smaller, square Westcott Medium Apollo. While this would come at the cost of light loss, it would offer more options in setting



Above: The 110cm Westcott Apollo Orb creates a large, soft light source with good wrap-around and attractive catchlights.

the intensity of the light. These are minor points, however, and certainly won't put me off using the Orb. The final sticking point might be price. The 110cm Westcott Apollo Orb costs around US\$150 – substantially more than a standard softbox, although I am comparing apples with oranges in saying that. The fact is that the Orb creates a light that is noticeably higher quality and softer than a traditional softbox. Build quality can't be faulted and the Orb is quick to assemble and compact when stored.

VERDICT

A large, diffuse light source that is easily controlled, creates attractive catchlights and fits any kind of light. For portrait lighting in the studio or on location, I would strongly recommend giving the Orb a try.

Build quality	★★★★
Features	★★★★
Performance	★★★★★
Value	★★★★
Overall	★★★★

BIG SHOTS

Benro C3570F vs Giotto's Silk Road YTL 8213

Size and weight are two of the most important factors to consider when choosing the right tripod. But while picking a lightweight option that folds down small makes sense most of the time, if you use long lenses and heavier loads, bigger is often better

Test: RICHARD HOPKINS

THREE ARE TWO high-quality carbon-fibre tripods of classic design – but bigger. They have three-section legs with adjustable angles, sliding centre-columns and fast lever leg-locks – basically larger versions of the medium-sized Benro and Giotto's models that did so well in our group test from a few months ago. Here they've been beefed up to handle longer lenses and heavier loads, and they also stand usefully taller too. They weigh a bit more and cost extra too, but they're not massively expensive for carbon-fibre and that magical material helps keep the weight down. The Benro weighs just under 1.9kg, and the Giotto's is actually very light indeed for a tripod of this size, at just over 1.6kg.

The legs are fatter as well as being longer. The top sections measure a meaty 32mm diameter and the 28mm middle-sections are basically the same as the top sections of the next model down. Bigger means more rigid with less flex and the leg-locks are larger too. The extra length means both tripods stand roughly 12cm higher than their smaller siblings, bringing the Benro up to 153cm before extending the centre-column, and the Giotto's to 162cm. This is substantially above the typical 130–135cm (plus head) needed to put the camera at a comfortable shoulder level for the average person.

The extra size brings several advantages. In normal use when you don't need the height, it allows a few inches of leg to be slid back inside the upper section and this stiffens up the joints for a really solid support. Or if you're working on a slope, there's the option to extend one or two legs and maintain a level platform. Then when you want the full height,



BENRO C3570F

Street price: \$570
Leg sections: Three
Leg angles: Three
Height: 153cm
Centre-column up: 180cm
Min height: 38cm
Length closed: 71cm
Weight: 1.86kg
Load rating: 18kg
Carry bag: Included
Warranty: Five years
Website: www.benrousa.com



GIOTTO'S SILK ROAD YTL 8213

Street price: \$475
Leg sections: Three
Leg angles: Three
Height: 162cm
Centre-column up: 193cm
Min height: 45cm (14cm with adapter)
Length closed: 68cm
Weight: 1.63kg
Load rating: 10kg
Carry bag: £25 extra
Warranty: Five years
Website: www.giottos.com

it's there – when shooting groups for example, to give a better view and a more interesting angle. Wedding photographers go armed with short stepladders for this. With architecture, a raised viewpoint reduces converging verticals.

The Giotto's is unusually tall, especially with the centre-column extended. At full stretch in a normal room, your head will literally be bumping against the ceiling. It's the largest model in the Giotto's range, though Benro offers one size bigger, the 4570. These tripods can take a heavy load, and while the claimed figures should be taken with a pinch of salt, there's not much they can't handle – like a super-telephoto 500mm f/4 prime on a gimbal head.

In terms of build quality, both tripods are very well finished and smooth operating. They both have leg-locks adjustable for wear, though the Benro clamps more firmly and the Giotto's benefits more from the slide-some-leg-back-up trick, potentially reducing its height advantage. The Giotto's

centre-column also feels slightly less solid when fully extended, though the fluted profile helps it to slide nice and easy. The Giotto's features the new slimmed-down Silk Road design for a more compact folded size, and that's most welcome, but the extra leverage-loads imposed by a taller tripod can push the strength of some components more than usual.

BENRO

The Benro has a slightly larger and more stable footprint than the Giotto's due to the wider angle of its legs.



VERDICT: Benro C3570F

A good, big, firm tripod. Fairly light but well engineered to handle heavier loads, plus extra height when needed. A lot of performance for not too much money.

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★★★
Overall	★★★★★

VERDICT: Giotto's YTL 8213

Exceptionally tall and very light – nothing can touch it on that score. Works very well at normal heights, but at full stretch the joints could be beefier. Great value.

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★★★
Overall	★★★★★

The Benro is a great tripod that can take heavier loads than the Giotto's. However, overall we'd opt for the Giotto's as it offers a height and weight advantage and costs slightly less. In truth though, there's little to choose between these two.



BUDGET FLASHGUNS

LET THERE BE LIGHT! FLASHGUNS ARE KEY CREATIVE TOOLS TO TAKE YOUR PHOTOGRAPHY TO THE NEXT LEVEL, AND THERE'S NO BETTER WAY TO START LEARNING THAN WITH ONE OF THESE AFFORDABLE MODELS

FLASHGUNS, SPEEDLIGHTS, STROBES, call them what you will – a decent flash is one of the most important purchases you'll make. Not only are they essential when the light gets too low, but flash can greatly enhance normal daylight photography and also take you into a whole new world of strobist creative image making.

Flashguns are so much more than bigger versions of the camera's pop-up unit. They have a lot more power for one, and that's what you need for bouncing the light off the ceiling and walls for a much better lighting effect. They are equipped with tilting and swivelling heads to make bouncing light easier and you can take them off-camera,

Test: RICHARD HOPKINS

using two, three or more at a time, fit them to lighting modifiers, and really go to town.

Off-camera and multiple flash photography were very difficult in the days of film, but now with auto-TTL control, wireless sync, and instant replay on a digital camera's LCD monitor to confirm exposure and lighting effect, these techniques are within everyone's reach.

There's more. Until just a few years ago, a top-end flashgun with a decent bit of poke would cost hundreds of pounds. Some of them still do, but independent manufacturers have pretty much rewritten the rule book

here with excellent products, great specifications and astonishingly low prices.

This issue, we've rounded up ten of the best buys under \$500 and you'll be pleasantly surprised at just how much performance can be had for well below that budget. Next issue, in the over \$500 price bracket, we'll be taking a look at top-of-the-range models from all the leading manufacturers.

HOW WE DID THE TESTS

● **POWER:** Using our standard method of firing into a Lastolite 95cm Umbrellabox and reading full-power brightness at 1.0m, this gives an accurate and reliable measure of



total light output that is directly comparable between all flash units. It's the same method as used for last month's review of studioflash heads, expressed as an f/number at ISO 100 plus a decimal, eg f/8 +0.5 is exactly half way between f/8 and f/11. That figure would also equate to around 100Ws in studioflash terms.

● **RECYCLE TIME:** An average of three full-power pops, using freshly-charged standard Eneloop Ni-MH batteries. Alkaline batteries are much slower, typically taking 50% longer.

● **FLASH DURATIONS:** Most flashguns have similar flash durations, that can be quite long at full-power, like 1/500sec or so, but they get very much faster as power is reduced. Broadly speaking, every time the power is reduced by one stop, the flash duration time is also halved. So at 1/2 power, a typical flash duration would be 1/1000sec, at 1/4 power 1/2000sec, and so on down to incredibly short flash durations of 1/20,000sec or 1/30,000sec at minimum output.

● **OTHER FEATURES:** Colour temperature is another performance feature we look at, which is usually close to daylight. Some

flashguns also feature high-speed sync (HSS, or Auto-FP sync in Nikon-speak).

● **LIGHT COVERAGE:** The zooming action of the flash head improves efficiency by adjusting the angle of the light coverage to match the field-of-view of the lens (set in increments relating to full-frame equivalent focal lengths). At longer settings, this narrows and concentrates the beam, effectively making the flash brighter and increasing range. Note that manufacturers' quoted guide numbers refer to the gun's maximum focal length, thus flattering performance.

At shorter focal lengths, all of these flashguns struggle to get really even light coverage, so images suffer from darkened corners. It does look worse on test than it would in practice, as the effect would usually pass unnoticed or enhance an image with a slight vignette. The upside is that producing even coverage would mean a significant reduction in overall brightness, so it's a fair trade-off. When shooting at close distance, guns with an additional down-tilt position avoid darkening at the bottom of the frame.



FLASH TERMINOLOGY

● **GUIDE NUMBER:** A measure of flash brightness, that can also be used to calculate exposure when the flash is fired directly at the subject, based on the inverse square law (see below). Divide the guide number by distance to get the f/number – for example, GN56 (ISO 100, metres) would give a lens aperture of f/5.6 at 10m.

● **E-TTL & i-TTL:** E-TTL is Canon's name for their auto-TTL flash system, and Nikon's is labelled i-TTL. They both work in pretty much the same way, with the same main features.

● **PRE-FLASH:** In auto-TTL mode, a pre-flash is fired when the shutter release is pressed, just before the shutter opens, and the metering system uses this to calculate exposure. It all happens very quickly indeed, just a few milliseconds, too fast for the naked eye to separate the pre-flash from the main flash that follows straight after.

● **WIRELESS REMOTE FLASH:** The days of long trailing sync cables are gone, as modern flash systems communicate wirelessly and fire in sync using light-code instructions (very fast Morse code-like signals) or via radio instructions that are more reliable and have greater range.

● **MASTER/COMMANDER & SLAVE:** For wireless remote flash, the master unit (Canon) or commander unit (Nikon) sits on the camera and transmits exposure and sync instructions to the remote slave receiver guns.

● **S1 & S2 SLAVE:** S1 is a normal 'dumb-slave' feature, when the flashgun will fire in sync when it sees another flash firing. S2 mode is the same, but is programmed to ignore pre-flashes from the master unit and will only fire when it sees the main flash.

● **HIGH-SPEED SYNC:** HSS allows high shutter speeds, above the normal X-sync ceiling of focal-plane shutters (Nikon calls it FP-sync) that is limited to 1/200sec or thereabouts. Many top-end flashguns can do this, and it's invaluable for using flash in bright daylight, though effective power is inevitably greatly reduced so is best at close range.

● **SECOND-CURTAIN SYNC:** Normal X-sync fires the flash at the beginning of the exposure, and second-curtain sync fires it at the end. This can create a more natural-looking effect with bright moving subjects, such as the streaks of light from car headlights that would then appear behind the car rather than in front of it.

● **I.G.B.T:** Stands for Insulated-Gate Bipolar Transistor, which is a very fast switch used to control power output in flashguns, while also delivering very short flash durations – typically down to 1/30,000sec at minimum power. Conventional studioflash works completely differently in this respect.

● **BOUNCE FLASH:** A popular technique for creating softer and more natural lighting indoors by pointing the flash at a white ceiling. The ceiling effectively becomes the new and much larger light source, bouncing soft light over a wide area. Light-toned walls can also be used.

● **MULTI-FLASH MODE:** In multi-flash or stroboscopic mode, the flashgun will rattle off a sequence of flashes at set intervals. A good trick for showing off your golf swing!

● **INVERSE SQUARE LAW:** One of the fundamentals of flash photography, the inverse square law says that when the distance is doubled, the brightness of the light is reduced to one quarter – a drop of two stops. Basically, flash brightness falls off much more quickly than you might think!

MAIN FEATURES

- 1) Pull-out bounce card:** Works well for bounce-fill technique
- 2) Fold-down wide-diffuser:** Extends coverage with ultra wide-angle lenses
- 3) Rotating head:** Most flashguns allow you to tilt the head up, down and swivel
- 4) Slave sensor:** Optical slave receiver for remote firing
- 5) AF-assist light:** This emits a red beam to improve the camera's AF in low light
- 6) Battery compartment:** Most take four AAs
- 7) Metal foot:** Has mount with locking collar
- 8) Stand:** With 1/4in tripod bush underneath
- 9) Tilt and swivel angles:** Click-stopped at marked positions
- 10) LCD control panel:** Full display of all functions and settings
- 11) Panel light and beeper:** Illuminates LCD, often doubles as beeper on/off
- 12) Mode set:** Choose modes such as E-TTL, manual and multi-flash strobe
- 13) Sync options:** Sets high-speed sync and second-curtain sync
- 14) Custom functions:** Press both buttons to access custom functions
- 15) Zoom head & remote control:** Zoom head set, plus Master/Slave functions
- 16) Sync port:** Standard jack sync socket
- 17) Ready light:** Flash ready-light, which doubles as test button
- 18) Settings controller:** Four-way toggle selector, plus confirm button



Yongnuo Speedlite YN568EX II \$180

As a few years ago, Yongnuo was unheard of outside China and out of nowhere it has become a major player in the flash market, selling mainly through mail-order. Launching new models at a relentless pace, Yongnuo is now a leading innovator as well as making some unashamedly copycat products. It's a brand that we were originally sceptical about but having used a number of their flashguns and triggers, we've come to trust their reliability and performance.

The Yongnuo YN568EX II is very similar to the Canon Speedlite 580EX II in terms of specification, but one thing Yongnuo has not copied is the price – it sells for an astonishing \$180. It's a top-spec flashgun, including master/commander remote control functions (via light-code; radio control is available in the new Yongnuo YN600EX-RT), plus S1 and S2 slave modes, high-speed sync, second-curtain sync, an auto-zoom head and plenty more. The only omission of note is no facility for external power.

Performance is impressive, with power output among the highest at f/8 +0.7 and a fast recycle time of 3.3 seconds. All other aspects of performance are on par with other good quality flashguns, too, and the build quality is as good as other much more expensive flashguns.



Street price: \$180

Guide number: 58 at 105mm (ISO 100, m)

Tested output: f/8 +0.7 max power

Coverage: 24–105mm, 14mm wide-diffuser

Recycle time (max power): 3.3 seconds

High-speed sync: Yes

Second-curtain sync: Yes

Flash duration (claimed): 1/200sec max power to 1/20,000sec min power

Tilt-bounce: 0–90° up, 0–7° down

Swivel: 0–180° left; 0–180° right

Modes: Auto-TTL, manual, strobe

Remote modes: Auto-TTL master/command, auto-TTL slave, S1/S2 slave

AF assist beam: Yes

Pull-out bounce card: Yes

Accs: Stand & soft case

Firmware update port: No / Sync port: Yes

Power: Four AA batteries

External power socket: No

Dimensions: 180x73x60mm

Weight: 487g (inc Ni-MH batteries)

Camera fittings: Canon or Nikon

Website: www.yongnuo.eu

VERDICT

BEST BUY

The Yongnuo's specification, build quality and performance are all top-drawer. This model has a good reliability record, and the price is just incredible. The Yongnuo revolution continues with the YN568 EX II.

Build quality



Features



Performance



Value



Overall



Nissin Di600 \$200

Nissin makes some impressive flash units, including high-end models like the potent Di866 that has been one of the strobist's workhorse favourites for many years. The nicely made Nissin Di600 sits at the other end of the price scale, covering the essentials for general-use photographers but without too many frills, for a much lower cost.

Power output checked at f/5.6 +0.9, about one stop down on the most powerful guns, though it recycles in a swift 2.7 seconds.

It's fully auto-TTL compatible, plus manual and slave modes, but no master/commander

remote controller functions or high-speed sync at this level. The head is auto-zooming and comes equipped with both a pull-out bounce card and a super-wide diffuser panel. There's no downward head-tilt, and rotation is limited to 90° on the left.

The main area of economy is on the rear control panel, that lacks an LCD screen and has to make do with just a few buttons and a row of LEDs. This works well enough in auto-TTL mode, if only because there's no need to touch anything apart from the +/- compensation rocker-switch. But in manual mode, the LEDs double-up as power indicators, in one stop increments only, yet they're still marked in compensation values. It's workable, but not ideal.



VERDICT

The Nissin Di600 is a good, basic flashgun at an affordable price. It works well in auto-TTL mode, though less so in manual for off-camera work, or when high power is needed. Also available for Sony.

Street price: \$200

Guide number: GN44 at 105mm (ISO 100, m)

Tested output: f/5.6 +0.9 max power

Coverage: 24-105mm, 16mm wide-diffuser

Recycle time (max power): 2.7 seconds

High speed sync: No

Second-curtain sync: Yes

Flash durations (claimed): 1/800sec max power, to 1/20,000sec min power

Tilt-bounce: 0-90° up

Swivel: 0-90° left, 0-180° right

Modes: Auto-TTL, Manual

Remote modes: Auto-TTL slave, S1/S2 slave

AF assist beam: Yes

Pull-out bounce card: Yes

Accs: Mini stand

Firmware update port: No

Sync port: Yes

Power source: Four AA batteries

External power options: None

Dimensions: 178x76x54mm

Weight: 418g (inc Ni-MH batteries)

Camera fittings: Canon, Nikon, Sony

Website: www.nissindigital.com

Build quality

Features

Performance

Value

Overall

Sunpak PZ42X \$240

Sunpak has been producing flashguns for decades and offers an extensive range to suit all levels of photographer. Nice and neat, the Sunpak PZ42X is smaller and lighter than most. It's a basic gun for a reasonable cost, featuring auto-TTL compatibility – but only when attached to the camera or on a dedicated extension cord. There is no wireless light-code remote control option as standard, which sounds like a bit of a drawback, but on the other hand it works just fine when attached to a third-party radio trigger. Radio is the way to go with remote off-camera flash these days – more reliable, especially outdoors, and with far greater range.

Manual-only radio triggers are cheap as chips, and even Full Monty auto-TTL triggers aren't that expensive any more.

The auto-zoom head covers lenses from 24-105mm, and there's a wide-diffuser taking that down to 20mm. No pull-out bounce-card though, there's no downward tilt of the flash head, and rotation is limited to 120° on the right – small things in practice.

Controls are limited, though the LCD display is clear and logical. Power output checked at a very serviceable f/8 +0.3, which is half a stop or so down on the most powerful rivals, but good for the size and cost. Recycling at full-power takes 3.7 seconds.



VERDICT

The Sunpak PZ42X is quite small and light, but boasts enough power to get most things done. Features are fairly basic, but cover the essentials and the price is right. A decent budget buy from a reliable brand.

Street price: \$240

Guide number: GN42 at 105mm (ISO 100, m)

Tested output: f/8 +0.3 max power

Coverage: 24-105mm, 20mm wide-diffuser

Recycle time (max power): 3.7 seconds

High speed sync: No

Second-curtain sync: Yes (via camera)

Flash durations (claimed): 1/500sec max power, to 1/13,000sec min power

Tilt-bounce angles: 0-90° up

Swivel: 0-180° left, 0-120° right

Modes: Auto-TTL, Manual

Remote modes: None

AF assist beam: Yes

Pull-out bounce card: No

Accs: None

Firmware update port: No

Sync port: No

Power source: Four AA batteries

External power options: None

Dimensions: 160x64x58mm

Weight: 356g (inc Ni-MH batteries)

Camera fittings: Canon, Nikon, Sony

Website: www.sunpak.jp/english

Build quality

Features

Performance

Value

Overall

Metz 44 AF-1 \$255

The Metz brand has long been synonymous with producing brilliant flashguns, in particular its classic range of hammerheads. The Metz 44 AF-1 is far smaller than these older classics and sits at the lower end of the range, with a specification trimmed of the more luxury features.

It's an auto-TTL flashgun, either on-camera or as a remote slave, plus manual but with a restricted range of power settings – full-power, 1/2, 1/8 and 1/64 only. The head has a pull-out bounce card and diffuser panel taking coverage down to a very wide 12mm lens on full-frame (8mm on APS-C), with auto-zooming from 24-105mm. There's upwards tilt from 0-90°, though no downward tilt and rotation is limited to 120° on the right, 180° left.

So the basics are well covered and operation is a real model of simplicity. The rear control panel of the Metz has no LCD display, but a group of large buttons and a line of LEDs. It's very easy to use, logical and fast and looks quite snazzy too.

Rated with a guide number of GN44 (ISO 100, metres) at full-power, the measured output confirmed, with a test exposure of f/8 +0.3, that it performs well. Recycle time at maximum output was 3.3 seconds – see separate panel on *How We Did The Tests*.



VERDICT

The Metz offers a basic specification, but it's very easy to use and offers a decent level of power, and it's good value too. It's available to fit a very wide range of cameras, including most CSCs.

Street price: \$255

Guide number: GN44 at 105mm (ISO 100, m)

Tested output: f/8 +0.3 max power

Coverage: 24-105mm, 12mm wide-diffuser

Recycle time (max power): 3.3 seconds

High speed sync: No

Second-curtain sync: Yes (via camera)

Flash durations (claimed): 1/125sec max power, to 1/15,000sec min power

Tilt-bounce angles: 0-90° up

Swivel: 0-180° left, 0-120° right

Modes: Auto-TTL, Manual

Remote modes: Auto-TTL slave

AF assist beam: Yes

Pull-out bounce card: Yes

Accs: None

Firmware update port: No / Sync port: No

Power source: Four AA batteries

External power options: None

Dimensions: 175x73x56mm

Weight: 420g (inc Ni-MH batteries)

Camera fittings: Canon, Nikon, Olympus, Pentax, Samsung, Sony

Website: www.metz.de/en

Build quality

★★★★★

Features

★★★★★

Performance

★★★★★

Value

★★★★★

Overall

★★★★★

Gloxy GX-F990 \$265

Gloxy is another of the numerous new flash brands that have popped up recently. The GX-F990 sits at the top of the range of one model and is available for either Canon or Nikon cameras. It's a big gun and slightly heavier than most at 505g with batteries, though there are extensive features packed inside.

It's almost easier to say what it hasn't got than what it has, and that's no auto-TTL master/commander mode. That aside, it has almost everything else including all remote slave options, high-speed sync, second-curtain sync, an auto-zoom head that tilts slightly down for close-ups and rotates 180° both left and right, a pull-out bounce card, and a super-wide diffuser panel. Strobists will also welcome the X-sync port and external power socket.

It comes with a mini stand, a Stofen-type diffuser cap and a soft case. The review sample also came with a nice kit of 20 coloured gels in a neat wallet, plus attachment bands, though this might not be included with all purchases.

Power checked out at f/8 +0.3, which is slightly less than expected from the guide number, but only half a stop down on the most powerful. Recycle time was 3.2 seconds.



HIGHLY RATED

VERDICT

The Gloxy boasts a high specification including high-speed sync and it offers ample power too. It's a little heavy, but it's very well made and comes with useful accessories – all for a bargain price.

Street price: \$265

Guide number: GN54 at 105mm (ISO 100, m)

Tested output: f/8 +0.3 max power

Coverage: 18-180mm with wide-angle diffuser

Recycle time (max power): 3.2 seconds

High-speed sync: Yes

Second-curtain sync: Yes

Flash durations (claimed): 1/200sec max power, to 1/20,000sec min power

Tilt-bounce angles: 0-90° up, 0-7° down

Swivel: 0-180° left, 0-180° right

Modes: Auto-TTL, Manual, Multi-strobe

Remote modes: Auto-TTL slave, S1/S2 slave

AF assist beam: Yes

Pull-out bounce card: Yes

Accs: mini stand, soft case, diffuser cap, colour gel set

Firmware update port: No / Sync port: Yes

Power source: Four AA batteries

External power options: Yes

Dimensions: 204x77x57mm

Weight: 505g (inc Ni-MH batteries)

Camera fittings: Canon or Nikon

Website: www.gloxy.co.uk

Build quality

★★★★★

Features

★★★★★

Performance

★★★★★

Value

★★★★★

Overall

★★★★★

Canon Speedlite 270EX II \$220



The diminutive Canon 270EX II is deceptive, with more power than the guide number suggests – about four times the average camera pop-up flash. That's enough for a bit of bouncing, given the high ISO performance of most cameras these days, and the head tilts up 90° through four click-stopped positions. Plus it has high-speed sync, making it the perfect companion for a dash of fill-in on sunny day walkabouts. Only needing two AA batteries, it's less than half the weight of most flashguns and the smooth contours help it to slip easily into a pocket. Don't be put off by the apparent lack of controls – it's all done quite easily through Canon's in-camera flash menu. While the guide number of GN27 (ISO 100, metres) seems low, that's measured at the 50mm lens setting rather than the 105mm used for bigger flashguns. Scale that up to what it might be at a longer focal length and the guide number jumps to over GN40, putting it on par with the Nissin Di600 for example. Our test confirms that, with a total light output measured at f/5.6 +0.9 – the same as the Di600 and perfectly workable. Recycle time is 3.7 seconds.

VERDICT

HIGHLY
RATED

The Canon Speedlite 270EX II is small, light, surprisingly powerful, and the tilting head and high-speed sync gives it an extra bit of versatility. At \$220, it's a great buy as a pocketable second flashgun.

Street price: \$190
Guide number: GN27 at 50mm (ISO 100, m)
Tested output: f/5.6 +0.9 max power
Coverage: 28mm wide, 50mm tele
Recycle time (max power): 3.7 seconds
High-speed sync: Yes
Second-curtain sync: Yes
Flash durations (claimed): n/a (information unspecified by Canon)
Tilt-bounce: 0, 60, 75 and 90° up
Swivel: No
Modes: Auto-TTL, Manual
Remote modes: Auto-TTL slave
AF assist beam: Yes
Pull-out bounce card: No
Firmware update port: No
Sync port: No
Power source: Two AA batteries
External power options: None
Dimensions: 77x65x66mm
Weight: 202g (inc Ni-MH batteries)
Accs: Mini stand, soft case
Camera fittings: Canon only
Website: www.canon.com.au

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★★★
Overall	★★★★★

Sigma EF-610 DG Super \$325

The Sigma EF-610 DG Super is one of two flashguns produced by Sigma. This is the top model that adds to the cheaper 610 DG ST's features list with master/commander light-code auto-TTL remote control functions. The specification is comprehensive, including high-speed sync, second-curtain sync, a multi-strobe mode and also the promise of hefty power with a high guide number.

The flash head auto-zooms from 24-105mm, and the super-wide diffuser extends that to cover a 17mm lens. There's a pull-out bounce card, and the tilt facility angles the head down by 7° as well as up. Swivel is restricted to 90° on the right, and some might find that a bit limiting, though a nice feature is the head locks at the straight ahead and straight up positions, released by buttons. It handles well, with a clear LCD panel and two rows of buttons with easy, logical functions.

The guide number is GN61 (ISO 100, metres) and that's just about as high as it gets with flashguns. True to form, the Sigma 610 DG Super recorded f/11 exactly in the power test, beating all rivals by at least a quarter of a stop or more. Recycling was disappointingly slow though, at 5.7 seconds.



VERDICT

HIGHLY
RATED

A high-spec, high-performance flash from Sigma that is available in a wide range of camera fittings, for a fair price. It boasts impressive power, but its recycling times are slower than we'd like.

Street price: \$290
Guide number: GN61 at 105mm (ISO 100, m)
Tested output: f/11 +0.0 max power
Coverage: 24-105mm, 17mm wide-diffuser
Recycle time (max power): 5.7 seconds
High-speed sync: Yes
Second-curtain sync: Yes
Flash durations (claimed): 1/700sec max power, min power not given
Tilt-bounce angles: 0-90° up, 0-7° down
Swivel: 0-180° left, 0-90° right
Modes: Auto-TTL, Manual, Multi-strobe
Remote modes: Auto-TTL Master, auto-TTL slave, S1/S2 slave
AF assist beam: Yes
Pull-out bounce card: Yes
Firmware update port: No / Sync port: No
Power source: Four AA batteries
External power options: None
Dimensions: 139x77x17mm
Weight: 436g (inc Ni-MH batteries)
Accs: Mini stand, soft case
Fittings: Canon, Nikon, Pentax, Sigma, Sony
Website: www.sigmaphoto.com.au

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★★★
Overall	★★★★★

Nissin Di700 \$280

The Nissin Di700 adds more power and features over the Di600 (reviewed earlier), and sits below the popular Di866 and the potent MG8000 that we'll be reviewing in next month's issue.

There's no master/commander remote control, but that aside the specification reads comprehensively with auto-TTL slave operation, S1 and S2 slave modes, high-speed sync and second-curtain sync, X-sync port and external power socket. The rear control panel is very simple – just a colour LCD with settings dial and confirm button – the idea being that everything is done through the in-camera flash menu. This is very easy and works well with a full range of control options available, but it does take a little more time and button-pressing on the camera.

The flash head is very well executed, with 0-90° upwards tilt, 7° downwards for close working, and a full 180° rotation to both left and right. A nice touch is that the head is locked at the straight ahead and straight up positions, released by a button on the side. Coverage auto-zooms from 24mm right up to 200mm, with a fold-down diffuser extending coverage to a 16mm lens. There's a pull-out bounce card, too. Power checked at f/8+0.4, with a recycle time of 4.0 seconds.



Street price: \$280

Guide number: GN54 at 200mm (ISO 100, m)

Tested output: f/8+0.4 max power

Coverage: 24-200mm, 16mm wide-diffuser

Recycle time (max power): 4.0 seconds

High-speed sync: Yes

Second-curtain sync: Yes

Flash durations (claimed): 1/800sec max power, to 1/30,000sec min power

Tilt-bounce angles: 0-90° up, 0-7° down

Swivel: 0-180° left, 0-180° right

Modes: Auto-TTL, Manual

Remote modes: Auto-TTL slave, S1/S2 slave

AF assist beam: Yes

Pull-out bounce card: Yes

Sync port: Yes

Firmware update port: No

Power source: Four AA batteries

External power options: Yes

Dimensions: 189x80x56mm

Weight: 483g (inc Ni-MH batteries)

Accs: mini stand, soft case

Camera fittings: Canon, Nikon, Sony

Website: www.nissindigital.com

HIGHLY
RATED

VERDICT

The Nissin Di700 is well designed, offers extensive features and boasts decent power, all for a fair price. Control is handled mostly by the camera, which is good, but less convenient, and varies from brand to brand.

Build quality



Features



Performance



Value



Overall



Metz 52 AF-1 \$360

This full-specification flashgun from the famous Metz brand, made in Germany, packs a punch. It also scores a world-first for the flash market with an LCD that rotates according to a horizontal or vertical camera position, with touch-screen functionality. That's no gimmick either, allowing easy access to multiple controls with the bare minimum of buttons. Try it out, we guarantee it will impress you!

Features include auto-TTL master/commander control, auto-TTL slave, S1 and S2 slave, high-speed sync, second-curtain sync, and a USB port hidden in the battery compartment for firmware updates. This is for future-proofing, so that you're covered if a new camera model needs software modifications.

The flash head auto-zooms from 24mm right out to 200mm, with the diffuser panel extending coverage to an ultra-wide 12mm (8mm on APS-C). There's also a pull-out bounce card. The head tilts 90° upwards, but not down, and the rotation runs 180° to the left but only 120° right. The rotation is not locked, but very firmly click-stopped in the straight ahead position and the review sample needed real force to dislodge it, making a disconcerting cracking sound. The battery cover is also extremely hard to open.

Power output measured an impressive f/8+0.8 at full power, with a recycle time of 4.0 secs.



Street price: \$360

Guide number: GN52 at 105mm (ISO 100, m)

Tested output: f/8+0.8 max power

Coverage: 24-105mm, 12mm wide-diffuser

Recycle time (max power): 4.0 seconds

High-speed sync: Yes

Second-curtain sync: Yes

Flash durations (claimed): 1/125sec max power, to 1/25,000sec min power

Tilt-bounce angles: 0-90° up

Swivel: 0-180° left, 0-120° right

Modes: Auto-TTL, Manual

Remote modes: Auto-TTL Master, Auto-TTL slave, S1/S2 slave

AF assist beam: Yes

Pull-out bounce card: Yes / **Sync port:** No

Power source: Four AA batteries

External power options: None

Dimensions: 180x72x60mm

Weight: 449g (inc Ni-MH batteries)

Accs: Soft case

Camera fittings: Canon, Nikon, Olympus, Panasonic, Pentax, Sony

Website: www.metz.de/en

Build quality



Features



Performance



Value



Overall



Canon Speedlite 320EX \$335

Something a little different here: a flashgun with a built-in video light – that's the big round white LED that you can see on the front of the unit. This is both a flash and continuous light, designed with the new wave of stills shooters who also use their DSLRs for video making.

We'll concentrate on the flash side of things, and that follows a trend started with the original Canon 270EX from 2009, which basically hands over control of the flashgun to the camera, with key functions set via the in-camera menu system. It's actually a very good method, already installed in camera bodies for many years, and easy to use. The only downside is you have to dive into the menus every time you want to change anything, instead of having direct access on the back of the flashgun.

There's a handy slug of power, measuring f/8 +0.4, and the recycle time is unusually fast at 2.3 seconds. There's high-speed sync, second-curtain sync, and it works as an auto-TTL slave. The zoom head functions are quite limited though, with settings at 24mm and 50mm focal lengths only, manually selected. There's tilt to 90° upwards, and swivel 180° left, but limited to 90° right.



VERDICT

Combined flash/video lights are thin on the ground, probably because inevitable compromises mean they do neither job very well, as is the case here. A brave attempt, but LED panels are better for video.

Street price: \$290
Guide number: GN54 at 105mm (ISO 100, m)
Tested output: f/8 +0.3 max power
Coverage: 18-180mm with wide-angle diffuser
Recycle time (max power): 3.3 seconds
High-speed sync: Yes
Second-curtain sync: Yes
Flash durations (claimed): 1/200sec max power, to 1/20,000sec min power
Tilt-bounce angles: 0-90° up, 0-7° down
Swivel: 0-180° left, 0-180° right
Modes: Auto-TTL, Manual, Multi-strobe
Remote modes: Auto-TTL slave, S1/S2 slave
AF assist beam: Yes
Pull-out bounce card: Yes
Firmware update port: No / Sync port: Yes
Power source: Four AA batteries
External power options: Yes
Dimensions: 204x77x57mm
Weight: 505g (inc Ni-MH batteries)
Accs: mini stand, soft case, diffuser cap, colour gel set
Camera fittings: Canon
Website: www.canon.com.au

Build quality	★★★★★
Features	★★★★★
Performance	★★★★
Value	★★★★
Overall	★★★★★



CONCLUSION

Never has it been easier to pick a winner – the runaway Yongnuo 568EX II. Not only is it the best flashgun here, it's also the cheapest at \$180, selling for half the cost of its rivals, and holding its own in comparison with even more expensive models. Check the specification – it has everything. It's a master/commander controller, with high-speed sync, second-curtain sync, and a good dollop of power. The zoom, tilt and swivel functions are all

top-drawer, it's very well made, and great to use. Yongnuo has sold thousands and the feedback on reliability is good.

After that, everything else is an 'also ran'. However, that's not to say the competition isn't good, far from it in fact, and most of the flashguns here put in very capable performances at fair prices.

The Gloxy GX-F990 is another newcomer making an impressive debut with a generous spec, good power, and some nifty accessories. It's good value at \$265. At the other end of the scale, at

least in terms of size, comes the cute Canon 270EX II at \$220. It's more of a niche product, not really intended for use as a number one flashgun, but it makes a great number two.

Then there's the Sigma EF 610 DG Super at \$325. Not the sexiest looking, but fully specified, nice to use, and packing a mighty wallop. The Nissin Di700 is another high performer at \$280, with a good spec and excellent zoom head, if you don't mind the in-camera control functions.

Your gallery

WORKS OF ART FROM THE DIGITAL PHOTOGRAPHY COMMUNITY

WINNER!

Side street to the sunrise
by Lynn Donnelly

"This was taken early morning in Hua Hin, Thailand, down a side street leading to the beach. The sun on the corrugated tin produced the most beautiful copper colour. Olympus EM-5; 18mm; 1/160 sec; f/9; ISO 200."

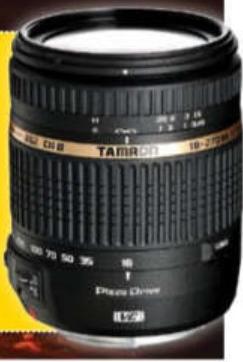
TAMRON

facebook.com/tamron.au



WIN!

Congratulations to Lynn, who has won a Tamron B008 18-270mm Lens (\$849, facebook.com/tamron.au) for her terrific image, 'Side street to the sunrise' – all thanks to **Maxwell International Australia** (www.maxwell.com.au)



RUNNER-UP**Hamelin sunset**

by Hannes Nitzsche

"At Hamelin Bay in southwest WA, the ruins of a former jetty make for an interesting subject. A 10-stop ND filter smoothed out the water and the clouds and created a ghost-like effect of the people under the jetty. The only thing that didn't move was the seagull on top.
100sec; f/9; ISO 100."

**RUNNER-UP****Inle Lake**

by Chris Mannolini

"On a recent photography tour of Myanmar, the day started cold and foggy. But as our long boats reached the lake the fog slowly lifted to reveal the so-called one-legged fishermen of Inle Lake. Canon 5DMkIII; 24-105mm lens; 1/250sec; f/20; 100 ISO

**TAMRON**

RUNNER-UP

Space – the place to be

by Mauro Sagginielli

"My wife and I staring towards the Milky Way from suburban Melbourne. (Lots of light pollution!) I had to Photoshop the number plate – because the classic Volksie wasn't mine!"

Nikon D600; 20sec; f/8,
ISO 3200."



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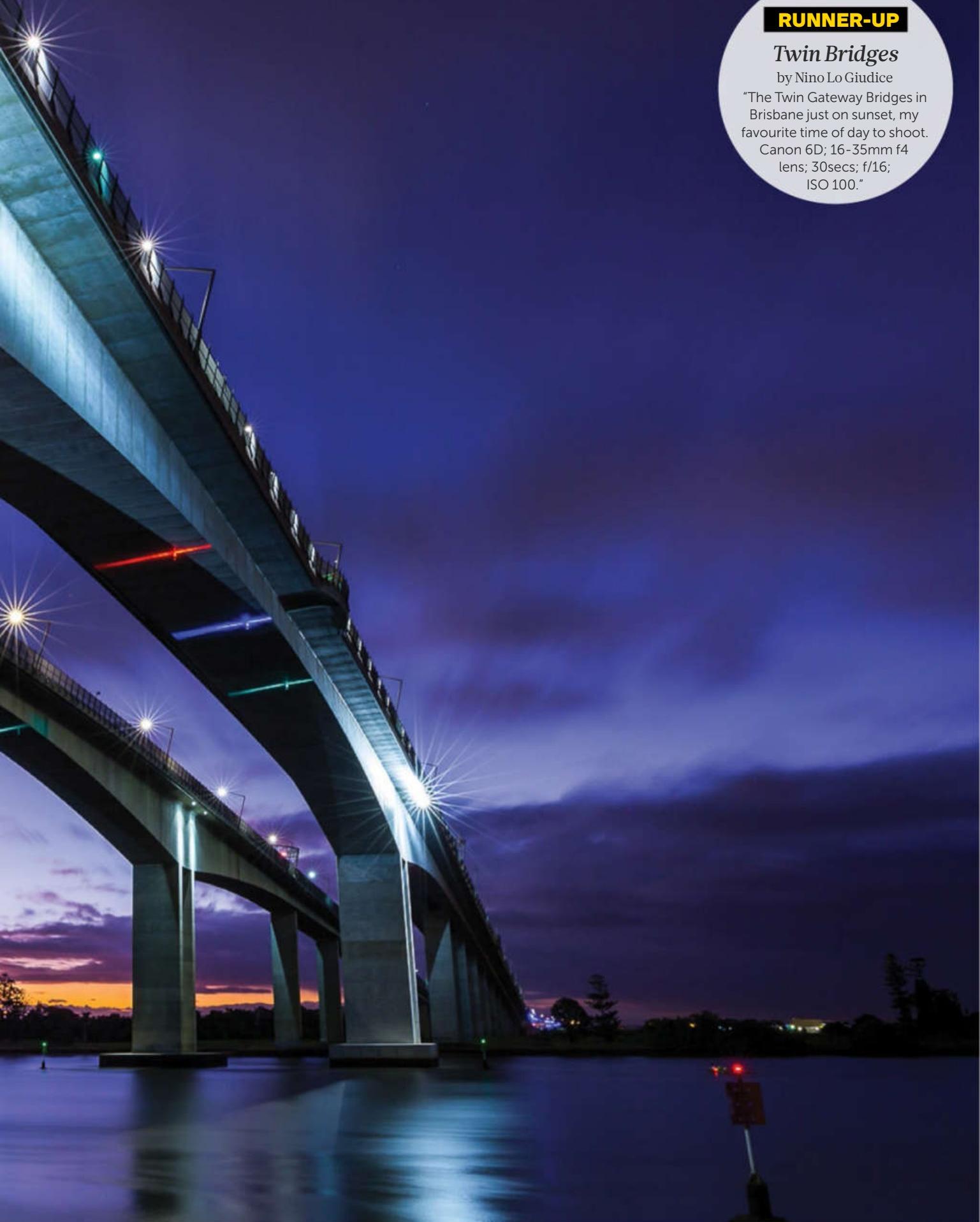
TAMRON

RUNNER-UP**Twin Bridges**

by Nino Lo Giudice

"The Twin Gateway Bridges in Brisbane just on sunset, my favourite time of day to shoot.

Canon 6D; 16-35mm f4
lens; 30secs; f/16;
ISO 100."

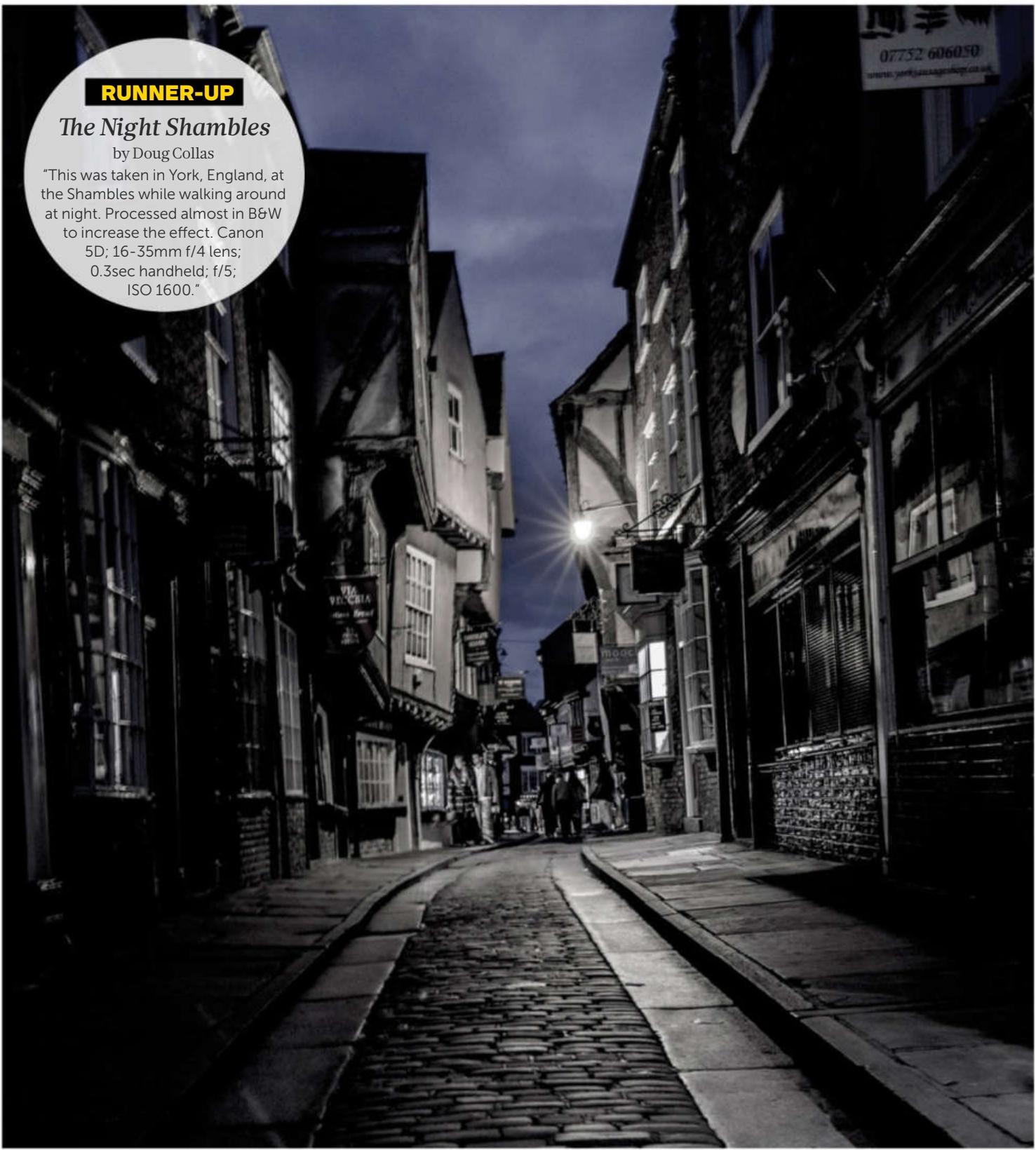
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RUNNER-UP

The Night Shambles

by Doug Collas

"This was taken in York, England, at the Shambles while walking around at night. Processed almost in B&W to increase the effect. Canon 5D; 16-35mm f/4 lens; 0.3sec handheld; f/5; ISO 1600."



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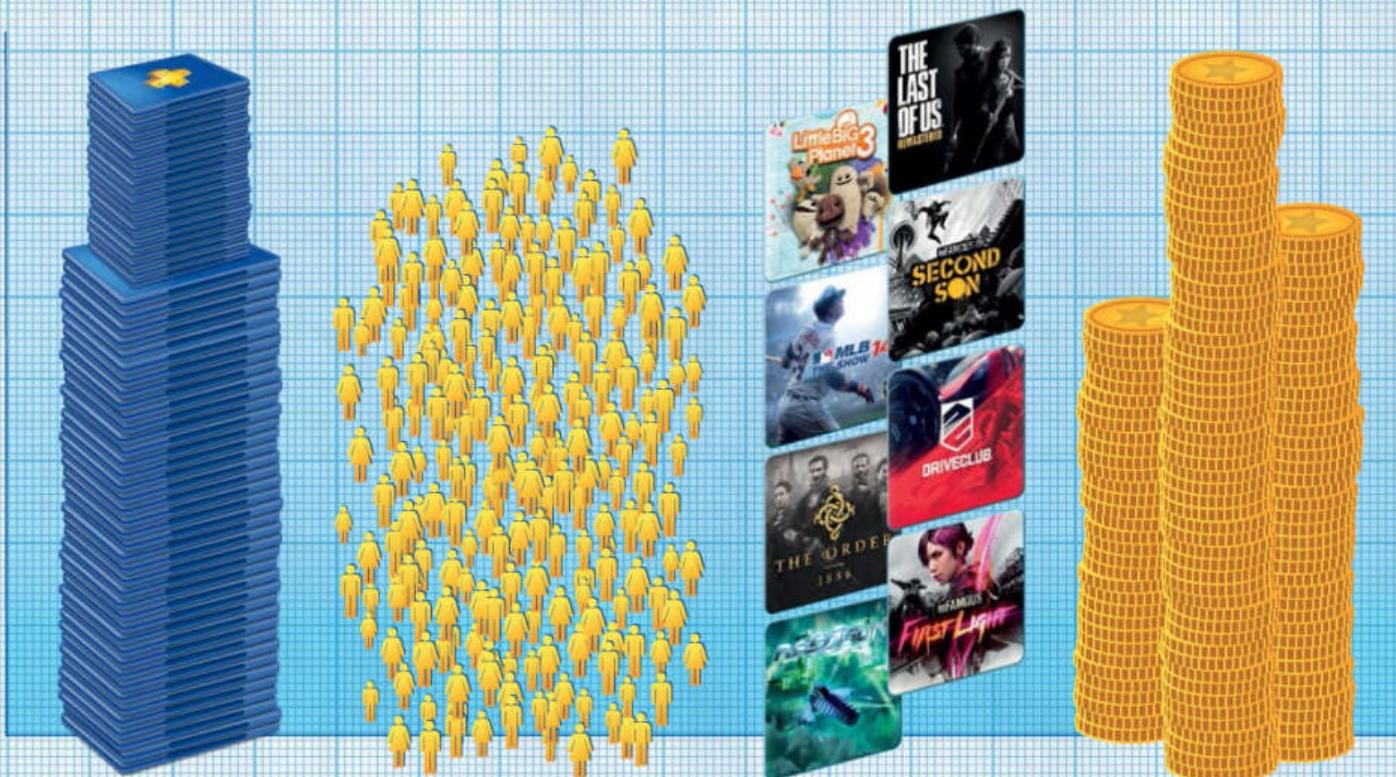
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